

**BEFORE THE ADMINISTRATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

In the Matter of:)	
Designation of Uinta Basin Ozone Nonattainment Area and Call for the Revision of Applicable State Implementation Plans Over their Failure to Attain and Maintain the National Ambient Air Quality Standards)	Rulemaking petition under the Administrative Procedure 5 U.S.C. § 551, <i>et seq.</i> , and the Clean Air Act, 42 U.S.C. § 7401, <i>et seq.</i>

PETITION TO THE U.S. ENVIRONMENTAL PROTECTION AGENCY TO:

(1) DESIGNATE THE UINTA BASIN OF NORTHEASTERN UTAH AND NORTHWESTERN COLORADO AS NONATTAINMENT FOR THE OZONE NATIONAL AMBIENT AIR QUALITY STANDARDS; AND

(2) CALL FOR THE REVISION OF THE COLORADO AND UTAH STATE IMPLEMENTATION PLANS DUE TO THEIR FAILURE TO ATTAIN AND/OR MAINTAIN THE OZONE NATIONAL AMBIENT AIR QUALITY STANDARDS

WildEarth Guardians, Southern Utah Wilderness Alliance, Western Colorado Congress, Utah Physicians for a Healthy Environment, and Earthworks’ Oil and Gas Accountability Project (hereafter “Petitioners”) hereby petition the Administrator of the Environmental Protection Agency (“Administrator” or “EPA”), pursuant to the Administrative Procedure Act (“APA”), 5 U.S.C. § 551, *et seq.*; the Clean Air Act, 42 U.S.C. § 7401, *et seq.*; and the EPA’s Clean Air Act implementing regulations, to undertake the following actions:

1. Pursuant to Section 107(d)(3) of the Clean Air Act, 42 U.S.C. § 7407(d)(3), designate the Uinta Basin region of northwestern Colorado and northeastern Utah, including, but not limited to, all or portions of Rio Blanco County, Colorado and Uintah and Duchesne Counties, Utah, as nonattainment for the primary and secondary national ambient air quality standards (“NAAQS”) for ozone set forth at 40 C.F.R. § 50.15.¹ According to available air quality data, this 10,000 square mile area area has failed and continues to

¹ The Uinta Basin is also often referred to as the “Uintah Basin.”

fail to meet the ozone NAAQS. Under the Clean Air Act, a nonattainment area is “any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant.” 42 U.S.C. § 7407(d)(1)(A)(i). The Uinta Basin is not currently designated as nonattainment, but must be redesignated on the basis of available air quality data. Such a redesignation requires that EPA amend rules at 40 C.F.R. § 81.306 (Colorado air quality designations) and 81.345 (Utah air quality designations) accordingly.²

2. Call for the revision of the Colorado and Utah State Implementation Plans (“SIPs”) pursuant to Section 110(k)(5) of the Clean Air Act. *See* 42 U.S.C. § 7410(k)(5). Available air quality data demonstrates that the SIPs for these states are substantially inadequate to attain and/or maintain the primary and secondary ozone NAAQS.

The need to undertake these actions is critical. Ozone, considered the key ingredient of smog, is a significant threat to public health and welfare. The gas forms when two key pollutants—nitrogen oxides (“NO_x”) and volatile organic compounds (“VOCs”)—react with sunlight. Release from smokestacks, tailpipes, and oil and gas drilling, NO_x and VOCs are considered to be primary ozone “precursors.” Although up high, ozone gas protects the Earth’s atmosphere, at ground-level, it is dangerous to human health and welfare. The current NAAQS limit ozone concentrations in the ambient air to no more than 0.075 parts per million (“ppm”) over an eight-hour period. *See* 40 C.F.R. § 50.15. At high levels, ozone is lethal. However, even at very small concentrations, ozone can cause myriad adverse health impacts, including:

- Increased respiratory symptoms such as irritation of the airways, coughing, or difficulty breathing;

² This request does not alter, supplant, or otherwise affect Petitioners’ position that EPA was legally required to designate the Uinta Basin as nonattainment as part of its 2012 rule finalizing area designations within the U.S., which is currently on appeal before the U.S. Court of Appeals for the D.C. Circuit. *See WildEarth Guardians, et al. v. EPA*, Appeal Nos. 12-1236 and 13-1032, consolidated with *Mississippi Commission on Environmental Quality v. EPA*, Appeal No. 12-1309 and other appeals. Should the D.C. Circuit rule the EPA was legally required to designate the Uinta Basin as nonattainment in 2012, Petitioners’ position is that the Agency would be obligated to designate the Uinta Basin as nonattainment on the basis of 2009-2011 air quality data and to otherwise respond affirmatively to this petition. Should the D.C. Circuit rule the EPA was legally justified in not designating the Uinta Basin as nonattainment in 2012, Petitioners’ position is that the Agency would still be obligated to affirmatively respond to this petition.

- Decreased lung function;
- Inflammation of airways;
- Asthma attacks; and
- Premature death.

See U.S. EPA, “Health effects of ozone in the general population,” website available at <http://www.epa.gov/apti/ozonehealth/population.html> (last accessed Jan. 28, 2014). According to the EPA, people with lung disease, children, older adults, and even active adults are likely to be more sensitive to the impacts of ozone. EPA has noted that “Children are at greater risk from exposure to ozone because their lungs are still developing and they are more likely to be active outdoors when ozone levels are high, which increases their exposure.” U.S. EPA, “Ground-level ozone, health effects,” website available at <http://www.epa.gov/glo/health.html> (last accessed Jan. 28, 2014).

As indicated by air quality data, ozone is a growing problem in the Uinta Basin. Over the years, ozone concentrations have skyrocketed, reaching levels on par with large cities due to unchecked NO_x and VOC emissions. Although the Uinta Basin may not be the size of Los Angeles or Houston, the health of its population is just as important. With the region’s ozone problem persisting, the EPA must take swift action to declare the Uinta Basin as nonattainment in order to spur greater control of air pollution in the region. Undertaking the requested actions will ensure that ozone pollution is reduced, affording greater protection to the people, particularly children, in these areas. Undertaking the requested actions will ensure that the problem is resolved, rather than continuing unabated.

PETITIONERS

WildEarth Guardians is a western U.S.-based conservation group with offices in Denver, Salt Lake City, Utah and elsewhere throughout the American West. WildEarth Guardians is dedicated to protecting and restoring the wildlife, wild rivers, and wild places of the American West. To this end, WildEarth Guardians seeks to safeguard clean air and the climate by promoting cleaner energy, efficiency and conservation, and alternatives to fossil fuels.

Southern Utah Wilderness Alliance is a Utah-based wilderness advocacy organization with offices in Salt Lake and Moab. The Alliance's missions is the preservation of outstanding wilderness at the heart of the Colorado Plateau, and the management of these lands in their natural state for the benefit of all Americans.

Western Colorado Congress is a western Colorado-based citizens group dedicated to challenging injustice by organizing people to increase their power over decisions that affect their lives. The Congress' members work toward healthy and sustainable communities, social and economic justice, environmental stewardship, and a democratic society.

Utah Physicians for a Healthy Environment (UPHE) is the largest civic organization of health care professionals in the state of Utah with about 300 members. UPHE's primary focus is the education of the public and policy makers on the health consequences of environmental degradation, especially air pollution.

Earthworks' Oil and Gas Accountability Project is a national organization dedicated to protecting communities and the environment from the impacts of irresponsible oil and gas development. The Oil and Gas Accountability Project works with rural, tribal, and urban communities to protect their homes and environment from the devastating impacts of oil and gas development.

LEGAL BACKGROUND

1. Rulemaking and Rulemaking Petitions

WildEarth Guardians, Southern Utah Wilderness Alliance, Western Colorado Congress, Utah Physicians for a Healthy Environment, and Earthworks' Oil and Gas Accountability Project petition the EPA pursuant to the APA. *See* 5 U.S.C. § 551, *et seq.* The APA specifically requires that “[e]ach agency shall give an interested person the right to petition for the issuance, amendment, or repeal of a rule.” 5 U.S.C. § 553(e). A rule is defined as “the whole or a part of an agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy[.]” 5 U.S.C. § 551(4). The requested actions constitute a request that the EPA amend a rule or rules required by the Clean Air Act. In this case, Petitioners petition the EPA to designate the Uinta Basin as a nonattainment area and to promulgate this designation by amending 40 C.F.R. §§ 81.306 and 83.345 to list all or portions of Rio Blanco County, Colorado and Uinta and Duchesne Counties, Utah as nonattainment for the ozone NAAQS. Petitioners further petition the EPA to call for the revision of the Colorado and Utah SIPs, which are incorporated in federal regulation at 40 C.F.R. Part C, Subparts G (Colorado SIP) and TT (Utah).

The APA requires EPA to conclude the matter raised in this petition within a reasonable time. *See* 5 U.S.C. § 555(b). Furthermore, the Clean Air Act contemplates that the EPA will not delay unreasonably in addressing matters before it. *See* 42 U.S.C. § 7604(a) (providing that citizens can file suit against the EPA over unreasonable delay).

2. National Ambient Air Quality Standards

Under the Clean Air Act, the Administrator identifies criteria air pollutants that may reasonably be anticipated to endanger public health and welfare. *See* 42 U.S.C. § 7408(a)(1). Once criteria air pollutants are identified, the EPA is required to promulgate NAAQS for such pollutants. *See* 42 U.S.C. § 7409(a). The EPA is obligated to establish primary NAAQS for a criteria pollutant at a level “requisite to protect the public health.” *Id.* at § (b)(1). The EPA is also obligated to establish secondary NAAQS for a criteria pollutant at a level “requisite to protect the public welfare[.]” *Id.* at § (b)(2).

Once a NAAQS is promulgated, the EPA must initially identify areas that meet or do not meet the NAAQS within two years. *See* 42 U.S.C. § 7407(d). Any area not meeting the NAAQS is considered to be in nonattainment while any area meeting the NAAQS is considered to be in attainment. *Id.* at § (d)(1)(A)(i).

If air quality data indicates an attainment area is not meeting the NAAQS, the EPA has the responsibility to redesignate the area to nonattainment. *See* 42 U.S.C. § 7407(d)(3). To do so, the EPA must first notify the Governor of a state that available information indicates that the designation of the area must be revised from attainment to nonattainment. *Id.* at § 7407(d)(3)(A).³ Such a notification triggers a 120-day deadline by which the Governor must submit a request to redesignate the area. *Id.* at § 7407(d)(3)(B). Upon receiving a recommendation from a Governor, the EPA must promulgate the redesignation within 120 days.

³ Where an area not meeting the NAAQS is located within Indian Country, as defined at 18 U.S.C. § 1511, the EPA may, but is not required to, notify the appropriate tribal government. *See* U.S. EPA, “Developing Designation Recommendations for Areas of Indian Country” (Sept. 2013) at 17, available online at <http://www.epa.gov/air/tribal/pdfs/DevelopingaDesignationRecommendationforIndianCountry.pdf> (last accessed Jan. 28, 2014).

Id. at § 7407(d)(3)(C). If the Governor does not submit a recommendation for a redesignation in response to a notification from the EPA, the Administrator must promulgate such redesignation as she deems appropriate. *Id.*⁴

3. The Ozone NAAQS

The EPA promulgated the current primary and secondary ozone NAAQS in 2008, limiting 8-hour concentrations to no more than 0.075 ppm in order to protect public health and welfare. *See* 73 Fed. Reg. 16436 (March 27, 2008).⁵ The NAAQS are violated whenever the three-year average of the annual fourth-highest daily maximum 8-hour average concentration is greater than 0.075 ppm. *See* 40 C.F.R. § 50.15(b). This three-year average is often referred to as a “design value.” To measure compliance, monitors are utilized. Monitors are required to measure ozone in the air using methods specified under 40 C.F.R. § 50, Appendix D and designated under 40 C.F.R. § 53. *See* 40 C.F.R. § 50.15(a). Ambient concentrations are then measured on an hourly basis to calculate running 8-hour averages and or every day, the maximum 8-hour value is reported. *See* 40 C.F.R. § 50, Appendix P, 2.1. At the end of a calendar year, the fourth-highest value is determined and averaged with the previous two years fourth-highest values. *See id.* at Appendix P, 2.3(b)

To accurately assess compliance with the NAAQS, monitors are required to measure ozone concentrations at least 75% of the time during the annual ozone monitoring season. *See* 40 C.F.R. § 50, Appendix P, 2.3(b). The annual ozone monitoring season varies by location, but

⁴ Similarly, where a tribe does not submit a recommendation in response to an EPA notification, the EPA remains responsible for making the required designation under the Clean Air Act.

⁵ The EPA’s decision to adopt 0.075 as the secondary ozone NAAQS has since been remanded. *See State of Mississippi, et al. v. EPA*, No. 08-1200, 2013 WL 3799741 (D.C. Cir. 2013). In addition, the EPA has since proposed to lower the primary standard to between 0.060 ppm and 0.070 ppm. *See* 75 Fed. Reg. 2938 (Jan. 19, 2010).

is generally between March and October. *See* 40 C.F.R. § 58, Appendix D, 4.1(i). Where a monitor has gathered data less than 75% of the time, the data is normally not included in the design value calculation. However, even where data has been gathered less than 75%, the data must be included if the design value is above the NAAQS. *See* 40 C.F.R. § 50, Appendix P, 2.3(c). Thus, if the three-year average of the fourth-highest daily maximum 8-hour concentration is greater than 0.075 ppm, even incomplete data must be utilized.

By law, the Clean Air Act classifies ozone nonattainment areas based on the severity of the violation of the NAAQS. *See* 42 U.S.C. § 7511(b)(1). Areas with ozone concentrations that are just above the ozone NAAQS, are initially classified as “marginal” nonattainment areas, whereas areas with concentrations significantly higher than the NAAQS are classified as high as “extreme.” *See* 42 U.S.C. § 7511(a)(1); 40 C.F.R. § 51.1103. *See* Table below.

Classifications for 2008 8-hour Ozone Nonattainment Areas

Area Classification	From (ppm)	Up To (ppm)
Marginal	0.076	0.086
Moderate	0.086	0.100
Serious	0.100	0.113
Severe	0.113	0.175
Extreme	0.175	Higher than 0.175

Once an ozone nonattainment area is designated and classified by law, states must bring the area into attainment by dates certain, ranging from three years for marginal nonattainment areas up to 20 years for extreme areas. *See* 42 U.S.C. § 7511(a)(1). States must further submit SIP revisions by dates certain, assuring implementation and enforcement of necessary control measures to reduce NOx and VOC emissions, limit ozone, and attain the NAAQS. *See* 42 U.S.C. § 7511a, *et seq.*⁶ Where attainment is not achieved by the required date, an area is “bumped up” in

⁶ Where a nonattainment area includes Indian County, tribal governments may submit Tribal Implementation Plans or EPA must promulgate Federal Implementation Plans assuring

classification (e.g., from “marginal” to “moderate”) and subjected to the more stringent requirements of the higher classification. *See* 42 U.S.C. § 7511(b)(2). Where a state fails to make required SIP submissions or to adequately implement a SIP to attain the NAAQS in a nonattainment area, the EPA must sanction the state. *See* 42 U.S.C. § 7509(a).⁷

4. State Implementation Plans

Under the Clean Air Act, states prepare and submit SIPs to the EPA in order to attain and maintain the NAAQS, including the ozone NAAQS. *See* 42 U.S.C. § 7410(a). The SIP is a living document that the State and EPA can, from time to time, revise as necessary. EPA is authorized pursuant to the Clean Air Act to initiate rulemaking proceedings and to call for SIP revisions when a SIP is substantially inadequate to attain or maintain the NAAQS, or otherwise fails to meet the requirements of the Clean Air Act. *See* 42 U.S.C. § 7410(k)(5). In fact, EPA must “*require* the State to revise the SIP as necessary to correct such inadequacies.” *Id.* (emphasis added).

BASIS FOR THE ADMINISTRATOR TO UNDERTAKE THE PETITIONED ACTIONS

Petitioners bring their request on the basis of available EPA air quality monitoring data demonstrating that the Uinta Basin area, including all or portions of Rio Blanco County, Colorado and Uintah and Duchesne Counties, Utah, is currently in violation of the ozone NAAQS based on data from the years 2011-2013. Monitoring data demonstrates the design value for at least one monitor in the region exceeds the NAAQS of 0.075 and that additional

attainment as necessary and appropriate pursuant to the Agency’s Tribal Authority Rule under 40 C.F.R. § 49.11(a).

⁷ The sanctions available to EPA include restricted highway funding and more stringent emissions offsetting requirements for new or modified stationary sources of air pollution. *See* 42 U.S.C. § 7509(b).

monitors will likely have design values that exceed the NAAQS by the end of 2014. Currently, Rio Blanco County is designated “unclassifiable/attainment” and Uintah and Duchesne Counties, are designated as “unclassifiable.” 77 Fed. Reg. 30088, 30110 and 30151 (May 21, 2012). The data therefore demonstrates that the area must be redesignated to nonattainment. The data further indicates that this area is failing to attain and maintain the ozone NAAQS in accordance with Section 110 of the Clean Air Act. Below, we explain in more detail the basis for our requested action.

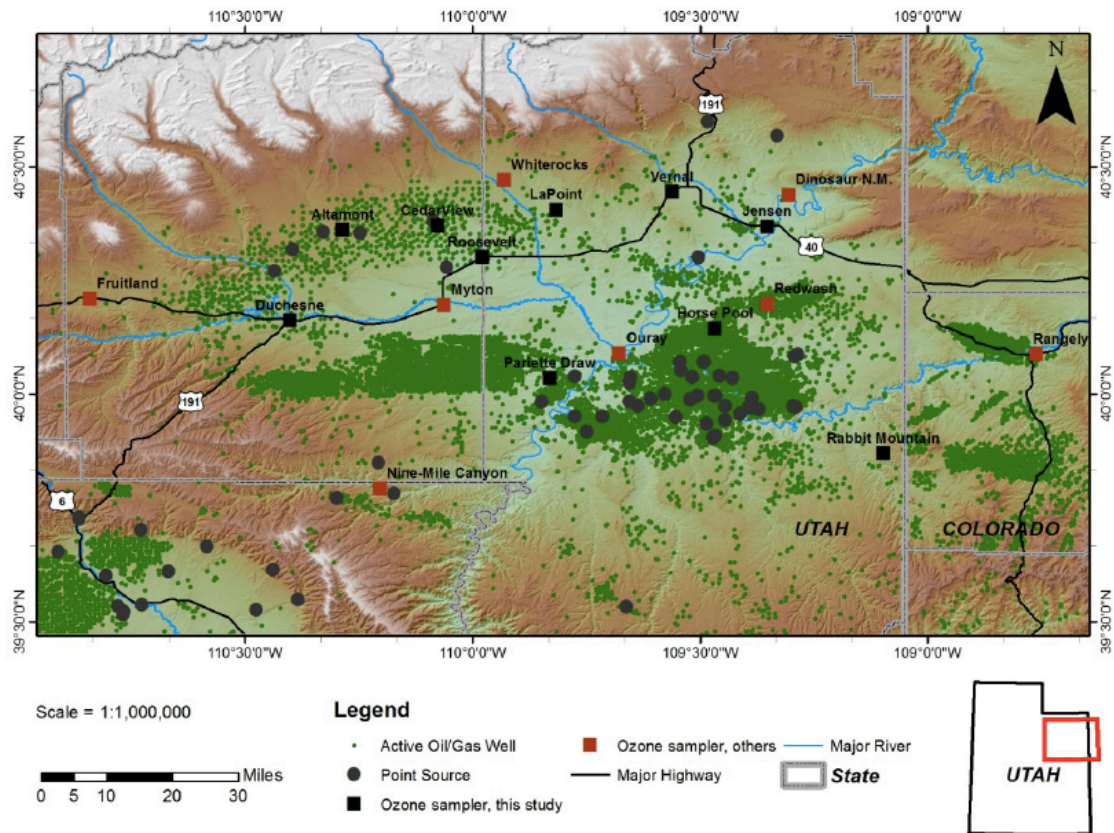
1. Designation of Uinta Basin as Nonattainment⁸

Our request that the Uinta Basin be designated as nonattainment is based primarily on data gathered by States and/or other agencies, and made publicly available on the EPA’s AirData website. See <http://www.epa.gov/airdata> (last accessed Jan. 28, 2014). According to the EPA, the AirData website provides “access to air quality data collected at outdoor monitors across the United States” and “comes primarily from the AQS (Air Quality System) database.” U.S. EPA, “AirData: Basic Information,” website available at http://www.epa.gov/airdata/ad_basic.html (last accessed Jan. 28, 2014). The use of data presented on EPA’s AirData website, which comes from the Agency’s AQS, is entirely appropriate in this case. According to the EPA, the Air Quality System database “contains ambient air pollution data collected by EPA, state, local, and tribal air pollution control agencies from thousands of monitoring states” and is used “to assess air quality, *assist in Attainment/Non-Attainment designations*, evaluate State Implementation Plans for Non-Attainment Areas, perform modeling for permit review analysis, and other air

⁸ A nonattainment area is defined as “any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard[.]” 42 U.S.C. § 7407(d)(1)(A)(i). Pursuant to this definition, Petitioners request that in designating nonattainment areas (or redesignating as nonattainment), the EPA delineate such areas to ensure the boundaries include any and all areas that are not meeting, or that contribute to violations in nearby areas that do not meet, the ozone NAAQS.

quality management functions.” U.S. EPA, “Air Quality System: Basic Information,” website available at http://www.epa.gov/ttn/airs/airsaqs/basic_info.htm (last accessed Jan. 28, 2014) (emphasis added).

The Uinta Basin is a roughly 10,000 square mile geographic region located in northeastern Utah and portions of northwestern Colorado. The region is defined as the lowlands ringed by the Uinta Mountains to the north, the Wasatch Range to the west, the Tavaputs Plateau to the south, and the Roan Cliffs and Blue Mountain to the West. Towns in the region include Fruitland, Utah on the far west, Rangely, Colorado in the far east, and Vernal, Utah, the most populous town in the region. The area also includes Ute Tribe lands that are part of the Uintah and Ouray Reservation. This region is not only geographically distinct it is industrially distinct, containing numerous oil and gas wells and related developments (including natural gas processing plants and compressor stations), a coal-fired power plant and coal-mine (the Bonanza coal-fired power plant, located 35 miles south of Vernal, and Deserado coal mine, located seven miles northeast of Rangely, which feeds the power plant), potential oil shale development, and related service operations. A recent study found that oil and gas operations in the Basin released 98-99% of all VOC emissions and 57-61% of all NO_x emissions. The Bonanza coal-fired power plant (ORISPL code 7790) released 33-36% of all NO_x emissions. *See* Exhibit 1, Lyman S. and H. Shorthill, eds., *2012 Final Report: Uintah Basin Winter Ozone and Air Quality Study* (Feb. 1, 2013) at 2. Below is an image showing the general location of the Uinta Basin and major industrial developments.



General Location of Uinta Basin and Major Industrial Development in Region (active oil and gas wells are shown as green dots).

Within the Uinta Basin, monitoring data gathered at a site in the town of Rangely shows the region is in violation of the ozone NAAQS. As of the end of 2013, the monitoring site registered a design value of 0.077 ppm, above the level of the NAAQS. Even the State of Colorado has acknowledged this monitoring site is currently in violation of the NAAQS. See Exhibit 2, Colorado Department of Public Health and Environment, “2013 Summer Ozone Season Review,” Briefing to Colorado Air Quality Control Commission and Colorado Board of Health (Oct. 17, 2013), noting on slides 5, 6, 10, and 12 that the design value at the Rangely monitor is above the NAAQS. Although this monitoring data may not yet be “certified” in accordance with 40 C.F.R. § 58.15(a)(2), the State of Colorado’s disclosures, coupled with the

fact that the data is available on EPA’s AirData website, indicate the data is both valid and available.⁹

8-Hour Ozone Monitoring Data and 2011-2013 Design Value for Rio Blanco County Monitor.

Monitor	Monitor ID	County Location	2011 4th Highest	2012 4th Highest	2013 4th Highest	2011-2013 Design Value
Rangely	081030006	Rio Blanco County, CO	0.073	0.069	0.091	0.077

Although monitoring data therefore demonstrates that all or portions of Rio Blanco County must be designated nonattainment, the best available information also strongly indicates the designated nonattainment area must include all or portions of the adjacent Utah Counties of Uintah and Duchesne in the remainder of the Uinta Basin.¹⁰ The best available information strongly indicates that these areas contribute to ambient air quality in Rio Blanco County.

Indeed, monitoring data available on EPA’s Air Data website from Uinta and Duchesne Counties demonstrates that between 2011 and 2013, there have been numerous exceedances of the NAAQS, with 8-hour concentrations frequently peaking above 0.100 ppm. While currently, design values at monitoring sites do not violate the NAAQS due to questionably inconsistent monitoring by the State of Utah, EPA, and other agencies, it appears that if circumstances persist

⁹ Under 40 C.F.R. § 58.15(a)(2), the quality of monitoring data must be certified by states, other agencies with delegated state authority, or by sources required to monitor under the Clean Air Act’s prevention of significant deterioration program by May 1. Certification under Part 58, however, is not determinative as to whether data is valid or otherwise “available” for purposes of assessing compliance with the NAAQS. EPA rules under 40 C.F.R. § 50.15 are clear that ozone monitoring data must be measured, collected, and interpreted in accordance with 40 C.F.R. §§ 50, Appendices D and P and 40 C.F.R. § 53. Part 58 simply establishes consistent quality requirements for ozone monitoring that apply only to states and certain stationary sources. *See* 40 C.F.R. §§ 58.2 and 58.3.

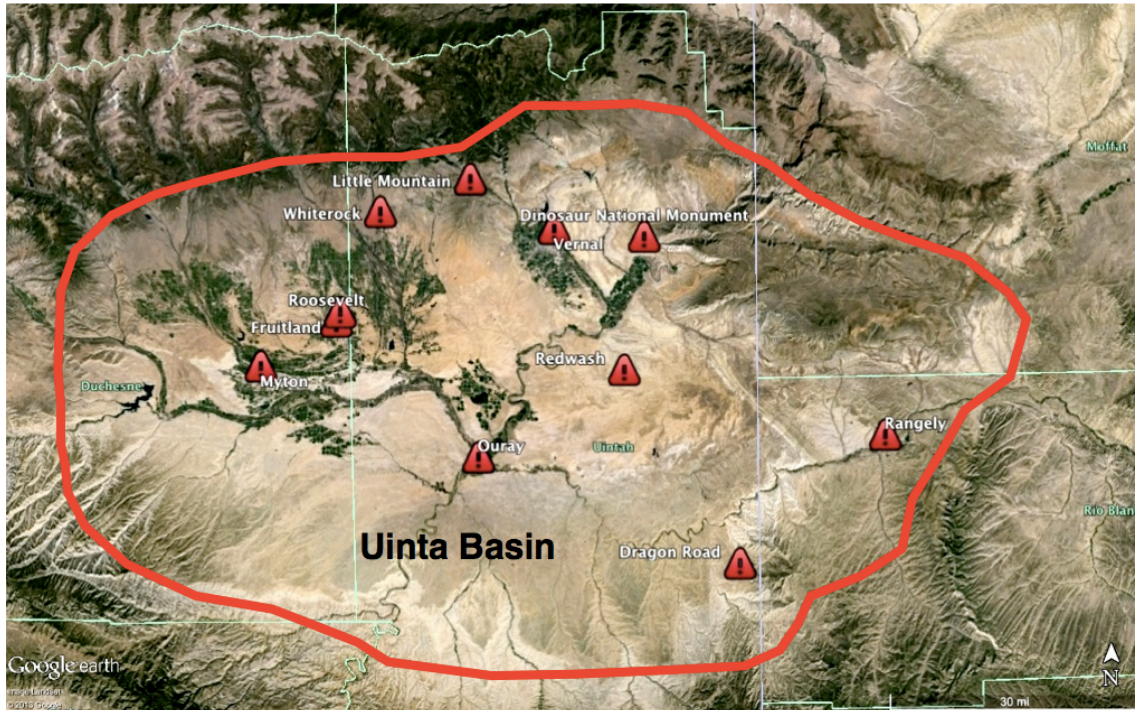
¹⁰ This includes all areas that are within the exterior boundaries of the Ute Tribe’s Uintah and Ouray Reservation within Uintah and Duchesne Counties.

in 2014, violations will certainly occur. At the Vernal monitor, the fourth maximum reading cannot exceed 0.062 ppm, a feat that has never been accomplished at this site. This data strongly indicates that elevated ozone in Rio Blanco County is closely tied to elevated ozone in Utah.

**8-Hour Ozone Monitoring Data and 2011-2013 Design Value for
Uintah and Duchesne Counties, Utah.**

Monitor	Monitor ID	County Location	2011 4th Highest	2012 4th Highest	2013 4th Highest	Highest Allowable 4th Max. for 2014
Myton	490137011	Duchesne County, UT	0.111 (19)		0.108 (20)	
Fruitland	490131001	Duchesne County, UT	0.065 (0)	0.070 (0)	0.067 (0)	0.091
Roosevelt	490130002	Duchesne, County, UT		0.067 (0)	0.104 (26)	
Whiterocks	490477022	Uintah County, UT	0.068 (2)		0.095 (11)	
Dragon Road	490475632	Uintah County, UT		0.072 (1)	0.082 (7)	0.074
Ouray	490472003	Uintah County, UT	0.126 (22)	0.070 (0)		
Redwash	490472002	Uintah County, UT	0.100 (21)	0.067 (0)		
Vernal	490471003	Uintah County, UT		0.064 (0)	0.102 (22)	0.062
Dinosaur National Monument	490471002	Uintah County, UT	0.090 (8)	0.075 (2)		
Little Mountain	490470014	Uintah County, UT	0.059 (0)			

These exceedances underscore the fact that the Uinta Basin shares common air quality patterns. The image below illustrates the geographic proximity of the Rio Blanco County ozone monitor with other monitors in the region. At least four monitors—Vernal, Dinosaur National Monument, Redwash, and Dragon Road—are within 50 miles of Rangely. Furthermore, all of these monitors are at similar elevations, between 1400 and 1650 meters (~4600-5400 feet). *See Exhibit 1, Uintah Basin Ozone Study at 72-73.*

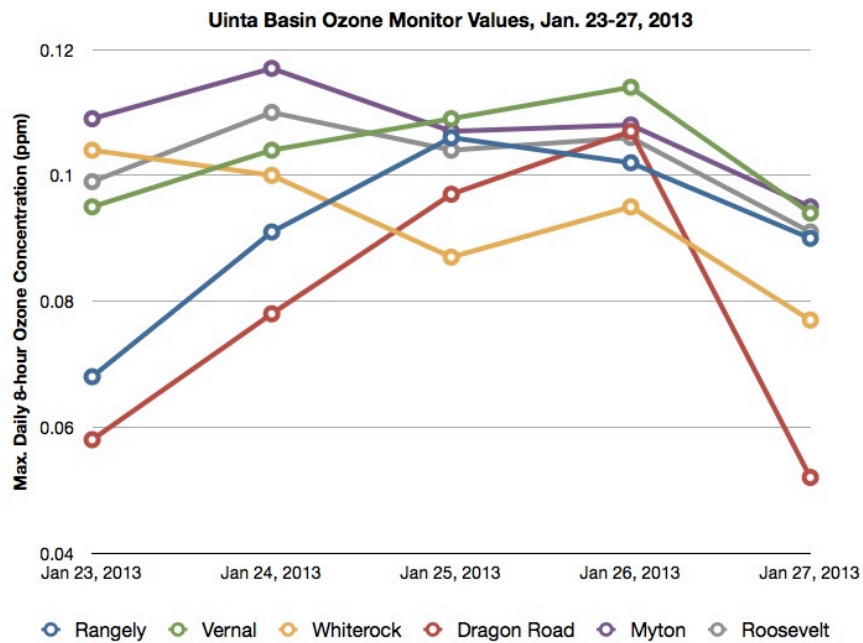
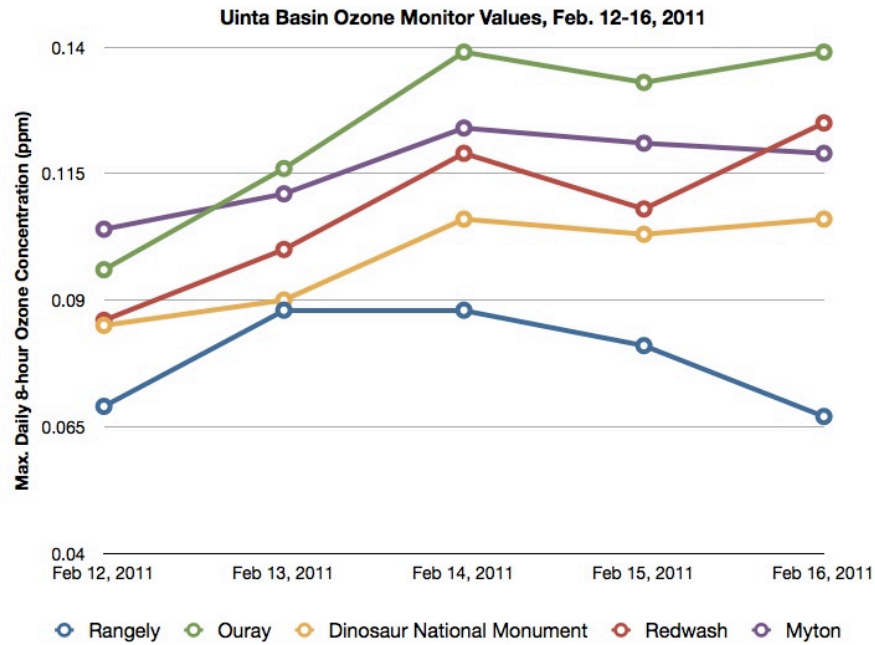


Location of Ozone Monitors in Uinta Basin.¹¹

The direct relationship between ozone in Rio Blanco County and the rest of the Uinta Basin is emphasized more clearly by the fact that during key ozone events (i.e., extended periods of high ozone concentrations) over the last three years, particularly in 2011 and 2013, monitors in both the Utah and Colorado portions of the Uinta Basin were similarly affected. The charts below, which reflect only one episode in 2011 (there were at least two) and one episode in 2013 (there were six or more), show how high ozone concentrations in Rangely parallel high ozone concentrations elsewhere in the Basin. For instance, in 2013 elevated ozone levels recorded in Rangely occurred at the same time that high levels were recorded at the nearby Vernal and Dragon Road monitors. This strongly indicates that ozone levels in Rangely are indicative of air quality in the Uinta Basin as a whole. In fact, as the charts below demonstrate, high ozone in

¹¹ The location of ozone monitoring sites was established using Google Earth and an EPA developed .kmz file showing the location of every monitor in the U.S. This file is available at <http://www.epa.gov/airexplorer/Ozone.kmz> (last accessed Jan. 28, 2014).

Rangely appears to be an indicator of even higher concentrations in other parts of the Uinta Basin, further indicating that adjacent areas in Utah contribute to elevated ozone levels in Rangely and Rio Blanco County, Colorado.



The fact that both the Colorado and Utah portions of the Uinta Basin share common air quality patterns is underscored by the fact that both areas share common industrial characteristics and sources of air pollution, primarily extensive oil and gas development, the source of the vast majority of ozone precursors in the region. In both Rio Blanco County and in neighboring Uintah and Duchesne Counties, oil and gas operations are not only the largest sources of VOC and NO_x emissions, but the quantity of emissions rivals other counties in the region that also experience high ozone levels, yet that are much more populous and support much more intensive and extensive industrial development. The table below shows the total amount of VOC and NO_x emissions released in Rio Blanco County, in the Utah portion of the Uinta Basin (including both Uintah and Duchesne Counties), and in Denver and Weld Counties, Colorado. The numbers reveal:

- Oil and gas operations release 98% of all VOC emissions in the Uinta Basin and 86% of all NO_x emissions;
- Total VOC and NO_x emissions in the Uinta Basin are higher than total VOC and NO_x emissions in Denver County, Colorado, an urban area of more than 630,000 people with extensive motor vehicle traffic and industry (including a small amount of oil and gas development);
- Total VOC emissions in the Uinta Basin are higher than emissions in Weld County, Colorado, a county with extensive oil and gas development; total oil and gas VOC emissions in the Uinta Basin are higher than in Weld County. This is significant as Weld County is reported to contain 20,941 oil and gas well (*see* Exhibit 3, Colorado Oil and Gas Conservation Commission, “Weekly and Monthly Oil and Gas Statistics” (Jan. 7, 2014) at unnumbered slide 12, available online at

<http://cogcc.state.co.us/Library/Statistics/CoWklyMnthlyOGStats.pdf> (last accessed Jan. 28, 2014)), whereas the Uinta Basin is reported to contain nearly 11,000 wells (8,000 in Uintah and Duchesne Counties (*see* Exhibit 1, Uinta Basin Ozone Study at 5) and 2,094 in Rio Blanco County (*see* Exhibit 3, Colorado Oil and Gas Conservation Commission Statistics at unnumbered slide 12)). In other words, while there is greater oil and gas development in Weld County, VOC emissions are lower than in the Uinta Basin.

- Total NO_x emissions and total emissions from oil and gas operations in the Uinta Basin are higher than in Weld County. Once again, while there is greater oil and gas development in Weld County, NO_x emissions are lower than in the Uinta Basin.

Given that both Denver and Weld Counties similarly experience high ozone levels (in fact, both counties are currently designated by the EPA as nonattainment, *see* 40 C.F.R. § 81.306), high ozone in the Uinta Basin appears to be an extremely logical outcome in light of the higher levels of NO_x and VOC emissions. At the least, extensive oil and gas development and emissions of ozone precursors in both the Colorado and Utah portions of the Uinta Basin strongly indicates a need to designate the entire region as nonattainment in order to effectively reduce emissions and attain the ozone NAAQS.

VOC and NOx Emissions in Uinta Basin and Other Areas (in tons/year).¹²

Area	Total Human-created VOC	Oil and Gas VOC	% Contribution from Oil and Gas	Total NOx	Oil and Gas NOx	% Contribution from Oil and Gas
Rio Blanco County	26,022	25,243	97%	4,586	3,972	86%
Utah Portion of Uinta Basin	111,540	110,400	99%	22,800	14,400	63%
Total CO/UT Uinta Basin	137,562	135,643	98%	27,386	18,372	67%
Denver County, CO	13,229	109	.80%	15,723	47	.30%
Weld County, CO	116,083	106,361	92%	21,548	11,437	53%

Finally, even Colorado appears to recognize that the Rangely ozone issues are indicative of ozone issues in the Uinta Basin as a whole. In a presentation given in May of 2013, the State commented that their preference in addressing the ozone problem in Rangely would be to “coordinate as a whole [Uinta] basin, not piecemeal.” Exhibit 4, Colorado Department of Public Health and Environment, Air Pollution Control Division, “2013 Summer Ozone Season Pre-Review,” Briefing to Colorado Air Quality Control Commission (May 16, 2013) at slide 13. Petitioners share the State of Colorado’s perspective that addressing the ozone problem in the Uinta Basin should be coordinate as a whole effort. To this end, the need to designate all or portions of Rio Blanco County, Colorado and neighboring Uinta and Duchesne Counties, Utah, is all the more appropriate.

¹² Emissions inventory data for Rio Blanco County, Denver County, and Weld County emissions was obtained from the Colorado Department of Public Health and Environment, Air Pollution Control Division, and is based on 2011 data. Emissions inventory data for the Utah portion of the Uinta Basin is presented in Exhibit 1, Uinta Basin Ozone Study, at 33.

2. Call for Revision of Colorado and Utah SIPs

In addition to making the aforementioned redesignations and reclassifications, EPA must require Colorado and Utah to revise their SIPs on the basis that they are substantially inadequate to attain and maintain the NAAQS. Section 110(k)(5) of the Clean Air Act states:

Whenever the Administrator finds that the applicable implementation plan for any area is substantially inadequate to attain or maintain the relevant national ambient air quality standard...the Administrator shall require the State to revise the plan as necessary to correct for such inadequacies.

42 U.S.C. § 7410(k)(5). In this case, monitoring data clearly shows that SIPs for Colorado and Utah are failing to attain and maintain the ozone NAAQS in accordance with Section 110 of the Clean Air Act. Data from 2011-2013 shows the ozone monitors in the Uinta Basin, including Rio Blanco County, Colorado and Uintah and Duchesne Counties, Utah are either violating, near-violating, or grossly exceeding the ozone NAAQS, clearly demonstrating that respective SIPs are failing to attain and maintain the NAAQS.¹³

Even if monitoring data for the Uinta Basin ultimately shows attainment with the ozone NAAQS, the EPA is obligated at the very least to find that the Colorado and Utah SIPs are failing to maintain the NAAQS. The EPA has found in similar situations that where violations of the NAAQS have occurred in the recent past, it is appropriate to find that a SIP is substantially inadequate to maintain the NAAQS. For instance, the EPA recently found that the Iowa SIP was substantially inadequate to maintain the 2006 24-hour PM_{2.5} NAAQS on the basis that monitors

¹³ With regards to Ute Tribe lands that are part of the Uintah and Ouray Reservation and that do not fall under the jurisdiction of the Colorado or Utah SIPs, we also request EPA make a finding pursuant to 40 C.F.R. § 49.11 that additional rules are necessary or appropriate to protect air quality within these lands to ensure attainment and maintenance of the ozone NAAQS. Such a finding triggers a mandatory duty on the EPA to promulgate “without unreasonable delay” a Federal Implementation Plan to adopt such necessary or appropriate rules.

in the Muscatine area showed past violations. *See* 76 Fed. Reg. 41424 (July 14, 2011). The EPA stated:

The Muscatine area is currently designated as attainment of the 2006 24-hour PM_{2.5} standard, however, EPA finds that the SIP [is] substantially inadequate to maintain the 2006 24-hour NAAQS for PM_{2.5}, due to the monitor in the Muscatine area (Garfield School) recording data violating the standard (considering 2007-2009 monitoring data). In this instance, the CAA [Clean Air Act] requirements relating to nonattainment areas are not expressly applicable. Therefore, consistent with the general SIP requirements in section 110 of the CAA, and as discussed in the February 2, 2011, proposed SIP Call (76 FR 9706), EPA is requiring a SIP revision which includes adopted measures to achieve reductions necessary to attain and maintain the NAAQS, as well as contingency measures, as described below.

76 Fed. Reg. 41424, 41426 (July 24, 2011). Thus, although the EPA is mandated to find that the Colorado and Utah SIPs are substantially inadequate to attain the ozone NAAQS, at the least a finding that the SIPs are substantially inadequate to maintain the NAAQS is still warranted given the violation, near-violations, and exceedances identified in this petition.

Upon making a finding of substantial inadequacy, we request the EPA require submission of revised SIPs as expeditiously as practicable, but not later than nine months after making the finding.¹⁴ Pursuant to Section 110(k)(5) of the Clean Air Act, after making such a finding, the EPA must require submission of revised SIPs within 18 months. In light of the very real dangers to public health posed by excessive ozone pollution, as well as the exceptionally high ozone levels recorded in the Uinta Basin, it is reasonable for the EPA to require submission within nine months.

¹⁴ We also request that, for Ute Tribe lands that are part of the Uintah and Ouray Reservation, the EPA promulgate a Federal Implementation Plan within nine months upon making a determination that it is necessary or appropriate to adopt additional rules to ensure attainment and maintenance of the ozone NAAQS in the region.

CONCLUSION

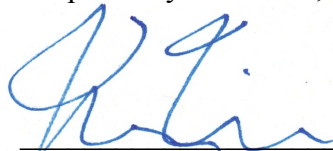
On the basis of available data, EPA must redesignate the Uinta Basin area, including all or portions of Rio Blanco County, Colorado and Uintah and Duchesne Counties, Utah, as nonattainment for the 2008 8-hour ozone NAAQS.

In addition to making the aforementioned redesignation, EPA must also call for the revision of the Colorado and Utah SIPs. Section 110(k)(5) of the Clean Air Act states that, “Whenever the Administrator finds that the applicable implementation plan for any area is substantially inadequate to attain or maintain the relevant national ambient air quality standard...the Administrator shall require the State to revise the plan as necessary to correct for such inadequacies.” 42 U.S.C. § 7410(k)(5). Because of the current ozone NAAQS violation in Rio Blanco County, as well as numerous exceedances and near-violations of the ozone NAAQS in Utah, the Administrator must call for the revision of SIPs as set forth in this petition.

Should the Administrator fail to respond by initiating the petitioned actions within 90 days, Petitioners will consider such delay unreasonable.

Dated this 29th day of January 2014.

Respectfully submitted,



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TABLE OF EXHIBITS

1. Lyman S. and H. Shorthill, eds., *2012 Final Report: Uintah Basin Winter Ozone and Air Quality Study* (Feb. 1, 2013)
2. Colorado Department of Public Health and Environment, “2013 Summer Ozone Season Review,” Briefing to Colorado Air Quality Control Commission and Colorado Board of Health (Oct. 17, 2013)
3. Colorado Oil and Gas Conservation Commission, “Weekly and Monthly Oil and Gas Statistics” (Jan. 7, 2014)
4. Colorado Department of Public Health and Environment, Air Pollution Control Division, “2013 Summer Ozone Season Pre-Review,” Briefing to Colorado Air Quality Control Commission (May 16, 2013)