



**UTE INDIAN TRIBE**  
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September 27, 2016

Mr. Shaun McGrath  
Office of the Regional Administrator  
Environmental Protection Agency, Region 8  
Denver, CO 80202

Re: Designation Recommendation for the Recently Revised National Ambient Air Quality Standards for Ozone

Dear Mr. McGrath:

The Ute Indian Tribe of the Uintah and Ouray Reservation (the "Tribe") is pleased to provide the following designation recommendation and multi-factor analysis to the 2015 eight-hour primary and secondary ozone National Ambient Air Quality Standards ("NAAQS"). The Tribe appreciates the opportunity to provide information to assist the Environmental Protection Agency ("EPA") in this effort.

A. Introduction

This recommendation supplements the Tribe's recent exceptional event demonstration submitted to EPA on August 23, 2015 in accordance with 40 CFR Part 50.14. Primarily, the Tribe requests that EPA grant the Tribe's exceptional event demonstration such that the Tribe's lands can remain classified as attainment/unclassifiable. Secondarily, in the event that EPA denies the Tribe's exceptional event demonstration, the Tribe requests that EPA designate only a specific portion of the Uintah Basin as nonattainment pursuant to this recommendation; namely, the area surrounding the Tribe's Ouray monitoring station.

B. Non-Attainment Status Recommendation for Area Surrounding Ouray Monitoring Station

On October 1, 2015, the EPA promulgated revised primary and secondary ozone NAAQS (80 FR 65292, October 26, 2015). Section 107(d) of the Clean Air Act ("CAA") governs the

process for initial area designations after the EPA establishes a new or revised NAAQS.<sup>1</sup> While Section 107(d) of the CAA specifically addresses the designations process between the EPA and states, the EPA also follows the same process to the extent practicable for tribes that choose to make initial designation recommendations pursuant to section 301(d) of the CAA regarding tribal authority.<sup>2</sup>

Section 107(d)(1) of the CAA directs the EPA to designate an area “nonattainment” if it is violating the NAAQS or if it is contributing to a violation of the NAAQS in a nearby area.<sup>3</sup> The boundaries of each nonattainment area are evaluated and determined on a case-by-case basis considering the specific facts and circumstances unique to the area. The EPA lacks sufficient, adequate data to classify the majority of the Uintah Basin as nonattainment. During the first three years of ozone level data collection, the industry collected such data, which is not a reliable source to base a classification determination upon. Thus, EPA should exclude this data from its analysis.

Moreover, classifying the entirety of the Uintah Basin as nonattainment would have a disproportionate effect on the Tribe, its economy, and its sovereignty as oil and gas development within the Basin represents the Tribes main economic activity. The standards contained within the EPA’s final rule on primary and secondary ozone NAAQS are not in the best interests of the Tribe or Indian Country in general. The Tribe is striving to preserve economic development and employment opportunities on its Reservation. Development restrictions and delays imposed on oil and natural gas operations in these areas by a general nonattainment designation within the Uintah Basin will place severe strain on the economic development and the social infrastructure of the Tribe. The EPA’s new ozone standards require compliance levels that disproportionately affect the Tribe and will have a severely detrimental effect on the Tribe’s economy. The standards are also exceedingly difficult for the Tribe to attain due to the naturally occurring high ozone levels within the Uintah Basin even without oil and gas development. Thus, the standards represent a substantial and unfair burden on the Tribe.

However, tribes may also submit requests designating areas of Indian country separately from adjacent areas for the NAAQS, when requested by the tribe for a particular area of Indian Country.<sup>4</sup> The EPA has designated specific areas in the country as nonattainment in the past such as certain counties surrounding Philadelphia and Pittsburgh, Pennsylvania.<sup>5</sup> Accordingly, the Tribe recommends that the EPA designate only a certain area surrounding the Ouray monitoring station as nonattainment because this area usually experiences higher ozone levels than other sites in the Basin during ozone episodes.<sup>6</sup> To receive proper consideration, tribes should include a multi-factor analysis of the requested area, which includes an analysis of: 1) Air Quality Data; 2) Emissions-related Data; 3) Meteorology; 4) Geography/Topography; and 5) Jurisdictional Boundaries. This recommendation analyzes each factor of the multi-factor analysis.

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<sup>1</sup> 42 U.S.C. § 7407(d)(2016).

<sup>2</sup> 42 U.S.C. § 7601(d)(2016).

<sup>3</sup> 42 U.S.C. § 7407(d)(1).

<sup>4</sup> EPA Memorandum, *Policy for Establishing Separate Air Quality Designations for Areas of Indian Country*, December 20, 2011.

<sup>5</sup> *EPA Green Book*, available at <https://www3.epa.gov/airquality/greenbook/hbcs.html#PA>

<sup>6</sup> The specific area surrounding the Ouray monitoring station that the Tribe proposes should be designated as nonattainment will be further detailed in an attached legal description.



## 1. Air Quality Data

The air quality data factor involves consideration of data from the national network of monitors operated to measure air quality.<sup>7</sup> A monitor within the area of Indian Country may be representative of the air quality in that area.<sup>8</sup> Data from both non-regulatory monitors and regulatory monitors can be included as part of the air quality factor analysis submitted by a tribe.<sup>9</sup>

The Tribe operates ozone monitors at four locations: Myton; Whiterocks; Ouray; and Redwash. The Ouray monitor began recording elevated ozone levels in winter 2009-2010, and has multiple exceedance days above the 8-hour standard during inversion periods. The Ouray monitor's coordinates are Latitude 40.055, Longitude -109.688. The monitor is located at an elevation of 1,464 meters.

## 2. Emissions-related Data

Emissions-related data includes information on the location of important nearby emission sources and the actual and/or estimated emissions from those sources that contribute to the air pollution in the area.<sup>10</sup> Emission-related data involves source emission data and activities related to traffic and commuting patterns, and population density, and degree of urbanization as potential sources of pollution.<sup>11</sup>

The Uintah Basin is rural with a population of approximately fifty thousand people. The economy of the Basin is focused on energy production from oil and gas resources. Oil and gas development is prevalent throughout the Basin with associated drilling, processing, compression and pipeline facilities. Most of the major emitters operate in the area surrounding the Ouray monitoring station. Many of the major oil and gas companies that operate within the Uintah Basin have operations in the Ouray monitoring station's area. This activity can lead to increased emissions output and higher ozone levels within the area.

## 3. Meteorology

The evaluation of meteorological data helps to determine the effect of meteorological conditions on the fate and transport of emissions contributing to the pollutant concentrations and to identify areas potentially contributing to monitored violations.<sup>12</sup> The Uintah Basin is a rural area of northeastern Utah where significant oil and gas production occurs. Ozone concentrations in excess of the current national air quality standard have been measured in the Basin during the winter. These high ozone levels are only observed in the Basin during winter inversion periods when the ground is covered by snow and stagnant, "cold pool" conditions are present; ozone levels

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<sup>7</sup> *Developing Designation Recommendations for Areas of Indian Country*, September 2013, U.S. Environmental Protection Agency, at p. 30.

<sup>8</sup> *Id.*

<sup>9</sup> *Id.*

<sup>10</sup> *Id.*, at 32.

<sup>11</sup> *Id.*, at 33.

<sup>12</sup> *Id.*, at 36.

outside of these periods have remained below the air quality standard and conditions resulting in exceedances of the standard do not occur every year.<sup>13</sup>

Ozone episodes in the Basin typically occur over multi-day periods with ozone and other pollutant concentrations increasing from one day to the next and are characterized by a strong, low-level temperature inversion that traps a pool of cold, polluted air within the Basin.<sup>14</sup> The top of this “cold pool” is typically found at an elevation of approximately 1650 meters; the depth of the polluted layer varies from approximately 70 - 400 meters within the Basin depending mostly on the local topography.<sup>15</sup> Radiative and thermal influences of the snow cover act to keep the cold pool in place during the day under clear skies, thus providing a shallow layer in which pollutants can build up and react in sunlight to form ozone.<sup>16</sup>

Areas of the Reservation, including the area surrounding the Ouray monitoring station, experience elevated levels of ozone under specific weather conditions—temperature inversion with snow cover—during the winter. Specifically, during winter months, ozone levels have traditionally increased at the Ouray monitoring station due to the effect of snow-cover and stagnant, high-pressure conditions. Ozone is generally considered a summertime pollutant, but winter exceedances of the ozone NAAQS have recently been found to occur near oil and gas fields in the West. The sunlight necessary for ozone to be created is magnified when it is reflected off of heavy snow cover. Snow cover also helps create temperature inversions that trap polluted air in the Basin. In winters with little snow, there have been few exceedances of the standards. These conditions combined with the elevation at the Ouray monitoring station, certain winds, and temperature inversions, can cause exceedances above the 70 ppb in the EPA’s final rule to occur in specific locations surrounding the Ouray monitoring station.

#### **4. Geography/Topography**

Geography and topography includes the physical features of the land that might define the airshed and thus affect the formation and distribution of pollution.<sup>17</sup> Mountains, narrow valleys, or other physical features may affect the location of emissions sources and the distribution of emissions in the airshed and may help define the boundaries of the violating area.<sup>18</sup> The geography/topography analysis involves an examination of the physical features of the land that might affect the airshed and, therefore, the potential distribution of air pollutants over the area.<sup>19</sup>

The Uintah Basin is an enclosed basin that lies in the northeast corner of Utah and is part of a larger area known as the Colorado Plateau. The Basin is bounded on the north by the Uintah Mountain range, on the south by the Book and Roan Cliffs, on the west by the Wasatch Range and on the east by elevated terrain separating it from the Piceance Basin in Colorado. The Green River

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<sup>13</sup> See, e.g., Final Report, 2014 Uinta Basin Winter Ozone Study, available at [http://www.deq.utah.gov/locations/Uintahbasin/ozone/docs/2015/02Feb/UBWOS\\_2014\\_Final.pdf](http://www.deq.utah.gov/locations/Uintahbasin/ozone/docs/2015/02Feb/UBWOS_2014_Final.pdf).

<sup>14</sup> *Id.*

<sup>15</sup> *Id.*

<sup>16</sup> *Id.*

<sup>17</sup> *Developing Designation Recommendations for Areas of Indian Country*, September 2013, U.S. Environmental Protection Agency, at 38.

<sup>18</sup> *Id.*

<sup>19</sup> *Id.*

runs through the Basin from northeast to southwest, exiting through the Book Cliffs via Desolation Canyon. The floor of the Basin is at approximately 4,800 feet above sea level with significant local topography on the order of tens to hundreds of feet.

The geography and topography of the Reservation often results in higher monitor readings based on meteorology and geography rather than an increase in locally controllable emissions. This is one of the biggest barriers for areas experiencing high winter ozone levels, including the area surrounding the Ouray monitoring station. The highest concentrations of ozone tend to occur at lower elevations in the Basin, which is where the Ouray station is located. Data also shows that elevated ozone correlated highly with the presence of snow-covered ground and strong temperature inversions, and that elevated ozone values do not occur absent these conditions. In fact, because the right weather conditions did not exist during 2012, ozone levels were low even as oil and gas production increased in the Basin.

The Ouray monitoring station sits at the lowest elevation of the all the Tribe's monitors at 1,464 meters within a valley that is surrounded by mountains. This creates a "bowl" within the surrounding area of the Ouray monitoring station, which when combined with cloud cover can create a sealing effect on the ozone and other emissions in the area. This traps emissions and causes ozone readings to be higher than other Tribal monitor levels. Additionally, the Ouray monitoring station's low elevation subjects it to more and longer inversion episodes, which can lead to higher ozone levels.

## **5. Jurisdictional Boundaries**

When analyzing the Tribe's recommendation, the EPA should recognize tribal sovereignty and the jurisdictional status of Indian Country in the decision-making process.<sup>20</sup> The Tribe retains important sovereign authority over its members and territories.<sup>21</sup> Jurisdiction in Indian Country generally rests with the Tribe and the federal government.<sup>22</sup> The Tribe has the jurisdiction and authority to monitor and control air quality levels within its Reservation. The Tribe is also actively working towards increasing its participation and involvement in local and regional air quality monitoring, planning, and pollution control programs and strategies. The Tribe fully intends to exercise its sovereign status and trust relationship with the United States Government and the EPA to guarantee that human health and the environment are protected. The Tribe is also committed to ensuring that the CAA is applied and implemented on the Reservation.

### **C. Conclusion**

Based on the analysis above, if the EPA does not grant the Tribe's exceptional event demonstration request, then the Tribe recommends that EPA classify only the area surrounding the Ouray monitoring station as a marginal nonattainment area. The Tribe concurs with the inclusion of the specifically requested area in this recommendation in the 40 CFR Part 81 Table should the EPA separately designate the area.

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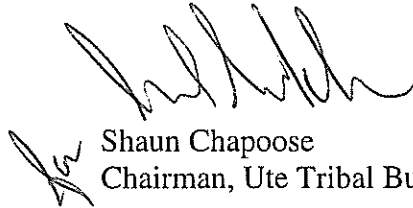
<sup>20</sup> *Id.*, at 39.

<sup>21</sup> *Id.*

<sup>22</sup> *Id.*

If you have any questions regarding this matter or if you need additional data to support our recommendation, please contact Minnie Grant, Energy and Minerals Department, Ute Indian Tribe, at (435) 725-4900.

Respectfully,



Shaun Chapoose  
Chairman, Ute Tribal Business Committee