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**IN THE UNITED STATES COURT OF APPEALS**
**FOR THE TENTH CIRCUIT**

| | | |
|---|---|---|
| STATE OF WYOMING,<br><br>Petitioner,<br><br>v.<br><br>UNITED STATES ENVIRONMENTAL PROTECTION AGENCY; SCOTT PRUITT, in his official capacity as Administrator of the U.S. Environmental Protection Agency; and DEBORAH THOMAS, in her official capacity as Acting Region 8 Administrator of the U.S. Environmental Protection Agency,<br><br>Respondents. | ) | Case No. _____ |

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**STATE OF WYOMING'S PETITION FOR REVIEW**

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On February 3, 2017, the United States Environmental Protection Agency (EPA) disapproved the interstate ozone transport portion of Wyoming's February 6, 2014, State Implementation Plan revision submittal. 82 Fed. Reg. 9142 (Feb. 3, 2017) (the Rule). The State of Wyoming hereby petitions the Court for review of the EPA's decision under Section 307(b)(1) of the Clean Air Act, 42 U.S.C. § 7607(b)(1), and Federal Rule of Appellate Procedure 15(a). Wyoming will ask this Court to vacate and remand that portion of the Rule to EPA for further proceedings. A copy of the Rule (Exhibit 1) and Wyoming's petition for reconsideration to the agency (Exhibit 2) are attached to this Petition.

Petitions for judicial review of the Rule must be filed in the United States Court of Appeals for the appropriate circuit by April 4, 2017. 82 Fed. Reg. at 9154 (citing Section 307(b)(1) of the Clean Air Act, 42 U.S.C. § 7607(b)(1)). Because this rule applies to the State of Wyoming, venue is appropriate in this Court. *See id*.

Respectfully submitted this 4th day of April, 2017.

s/ Elizabeth A. Morrisseau
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**CERTIFICATE OF DIGITAL SUBMISSION, VIRUS SCANNING, AND PRIVACY REDACTIONS**

I hereby certify that a copy of the foregoing **STATE OF WYOMING'S PETITION FOR REVIEW**, as submitted in Digital Form via the Court's ECF system, is an exact copy of the documents filed with the Clerk and has been scanned for viruses with Malwarebytes Anti-Malware, version 2.2.1.1043, Virus Definition File Dated: April 4, 2017 and, according to the program, is free of viruses. In addition, I certify all required privacy redactions have been made.

s/ Erik E. Petersen
Senior Assistant Attorney General

## CERTIFICATE OF SERVICE

Consistent with Local Rule 15.3, I hereby provide a list of the respondents requiring service of the Petition by the clerk.

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Consistent with Federal Rule of Appellate Procedure 15(c), I hereby certify that Wyoming will serve a copy of this filing upon the following participants to the underlying agency proceeding.

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# EXHIBIT 1

| Rule No. | Rule title | State effective date | Final rule citation, date | Comments |
|---|---|---|---|---|
| * | * | * | * | * |
| **R307–403 Permits: New and Modified Sources in Nonattainment Areas and Maintenance Areas** | | | | |
| R307–403 ..... | Permits: New and Modified Sources in Nonattainment Areas and Maintenance Areas. | 9/15/1998 | 71 FR 7679, 2/14/06 ..... | Except for R307–403–1, R307–403–2, R307–403–10, R307–403–11. |
| R307–403–1 ..... | Purpose and Definitions ..... | 7/1/2013 | [insert **Federal Register** citation], 2/3/2017. | Conditionally approved through 2/5/2018. |
| R307–403–2 ..... | Applicability ..... | 7/1/2013 | [insert **Federal Register** citation], 2/3/2017. | Conditionally approved through 2/5/2018. |
| R307–403–10 .... | Analysis of Alternatives ..... | 7/1/2013 | [insert **Federal Register** citation], 2/3/2017. | Conditionally approved through 2/5/2018. |
| R307–403–11 .... | Actuals PALS ..... | 7/1/2013 | [insert **Federal Register** citation], 2/3/2017. | Conditionally approved through 2/5/2018. |
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[FR Doc. 2017–02189 Filed 2–2–17; 8:45 am]
**BILLING CODE 6560–50–P**

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 52

**[EPA–R08–OAR–2016–0521; FRL–9959–15–Region 8]**

### Approval and Disapproval and Promulgation of Air Quality Implementation Plans; Interstate Transport for Wyoming

**AGENCY:** The Environmental Protection Agency.

**ACTION:** Final rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is taking final action on portions of six submissions from the state of Wyoming that are intended to demonstrate that the State Implementation Plan (SIP) meets certain interstate transport requirements of the Clean Air Act (Act or CAA). These submissions address the 2006 and 2012 fine particulate matter ($PM_{2.5}$) National Ambient Air Quality Standards (NAAQS), 2008 ozone NAAQS, 2008 lead (Pb) NAAQS, 2010 sulfur dioxide ($SO_2$) NAAQS and 2010 nitrogen dioxide ($NO_2$) NAAQS. The interstate transport requirements under the CAA consist of four elements (or prongs): Significant contribution to nonattainment (prong 1) and interference with maintenance (prong 2) of the NAAQS in other states; and interference with measures required to be included in the plan for other states to prevent significant deterioration of air quality (prong 3) or to protect visibility (prong 4). Specifically, the EPA is approving Wyoming's submissions for interstate transport prongs 1 and 2 for the 2008 Pb and 2010 $NO_2$ NAAQS, and approving prong 1 and disapproving prong 2 for the 2008 ozone NAAQS. The EPA is also approving interstate transport prong 4 for the 2008 Pb and 2010 $SO_2$ NAAQS, and disapproving prong 4 for the 2006 $PM_{2.5}$, 2008 ozone, 2010 $NO_2$ and 2012 $PM_{2.5}$ NAAQS.

**DATES:** This final rule is effective on March 6, 2017.

**ADDRESSES:** The EPA has established a docket for this action under Docket Identification Number EPA–R08–OAR–2016–0521. All documents in the docket are listed on the *http://www.regulations.gov* index. Although listed in the index, some information may not be publicly available, *e.g.*, Confidential Business Information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically through *http://www.regulations.gov* or in hard copy at the Air Program, Environmental Protection Agency, Region 8, 1595 Wynkoop Street, Denver, Colorado 80202–1129. The EPA requests that you contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section to view the hard copy of the docket. You may view the hard copy of the docket Monday through Friday, 8:00 a.m. to 4:00 p.m., excluding federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Adam Clark, Air Program, U.S. Environmental Protection Agency, Region 8, Mail Code 8P–AR, 1595 Wynkoop Street, Denver, Colorado 80202–1129, (303) 312–7104, *clark.adam@epa.gov.*

## I. Background

On November 18, 2016, the EPA proposed action on six submittals from Wyoming intended to address the interstate transport requirements of CAA section 110(a)(2)(D)(i) for the 2008 Pb, 2008 ozone, 2010 $NO_2$, 2010 $SO_2$, and 2006 and 2012 $PM_{2.5}$ NAAQS. 81 FR 81712. In that action, the EPA proposed to approve CAA section 110(a)(2)(D)(i)(I) prongs 1, 2 and 4 for the 2008 Pb NAAQS, prong 1 for the 2008 ozone NAAQS, prongs 1 and 2 for $NO_2$, and prong 4 for the 2010 $SO_2$ NAAQS, and proposed to disapprove prong 4 for the 2006 $PM_{2.5}$, 2008 ozone, 2010 $NO_2$ and 2012 $PM_{2.5}$ NAAQS, and prong 2 for the 2008 ozone NAAQS. An explanation of the CAA requirements, a detailed analysis of the State's submittals, and the EPA's rationale for all proposed actions were provided in the notice of proposed rulemaking, and will not generally be restated here.

The public comment period for this proposed rule ended on December 19, 2016. The EPA received seven comments on the proposal, which will be addressed in the "Response to Comments" section, below. All of the comments relate to the EPA's proposed action with respect to prongs 1 and 2 of CAA section 110(a)(2)(D)(i)(I) for the 2008 ozone NAAQS. We had proposed to approve the portion of the Wyoming SIP submittal pertaining to the CAA requirement that the State prohibit any emissions activity within the State from emitting air pollutants which will significantly contribute to nonattainment (prong 1) of the 2008 ozone NAAQS in other states and proposed to disapprove the portion of the Wyoming SIP submittal pertaining to the requirement that the state prohibit any emissions activity within the state interfering with maintenance (prong 2) of the 2008 ozone NAAQS in other states. In proposing to take this action, we noted two deficiencies in Wyoming's submittal: (1) Wyoming limited its

technical analysis to a discussion on general wind patterns relative to areas designated nonattainment in certain states that are geographically closest to Wyoming, and did not consider whether emission activity in the State specifically contributed to such areas on days with measured exceedances of the NAAQS or in other areas not designated nonattainment; and (2) Wyoming did not give the "interfere with maintenance" clause of CAA section 110(a)(2)(D)(i)(I) independent significance because its analysis did not attempt to evaluate the potential impact of Wyoming's emissions on ozone in areas that may have issues maintaining air quality.

In addition, the EPA cited at proposal certain technical information and a related analysis the agency conducted in order to facilitate efforts to address interstate transport requirements for the 2008 ozone NAAQS, which was also used to support the recently finalized Cross-State Air Pollution Rule Update for the 2008 ozone NAAQS (CSAPR Update).[1] In particular, the EPA cited to air quality modeling which (1) identified locations in the U.S. where the EPA anticipates nonattainment or maintenance issues in 2017 for the 2008 ozone NAAQS (these are identified as nonattainment and maintenance receptors), and (2) quantified the projected contributions from emissions from upwind states to downwind ozone concentrations at the nonattainment and maintenance receptors in 2017. The notice also proposed to apply an air quality threshold of one percent of the NAAQS, equivalent to 0.75 ppb with respect to the 2008 ozone NAAQS, to determine whether a state was "linked" to an identified downwind air quality problem in another state such that the upwind state may significantly contribute to nonattainment or interfere with maintenance of the NAAQS in the downwind state.

The modeling data showed that emissions from Wyoming contribute above the one percent threshold to one identified maintenance receptor in the Denver, Colorado area. Accordingly, as the Wyoming Department of Environmental Quality (WDEQ) did not provide technical analysis sufficient to support the State's conclusion that emissions originating in Wyoming do not interfere with maintenance of the 2008 ozone NAAQS in any other state, the EPA proposed to disapprove the Wyoming SIP as to prong 2 of CAA section 110(a)(2)(D)(i)(I). The proposal also noted that, despite the deficiencies in Wyoming's SIP submission as to prong 1, the modeling data confirmed the State's conclusion that it does not significantly contribute to nonattainment of the 2008 ozone NAAQS in any other state. Accordingly, the EPA proposed to approve Wyoming's SIP as meeting the prong 1 requirements of CAA section 110(a)(2)(D)(i)(I) for the 2008 ozone NAAQS.

[1] "Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS." 81 FR 74504, October 26, 2016.

## II. Response to Comments

*Comment:* Several commenters asserted that the State should be given more time to review the CSAPR Update modeling analysis before the EPA takes final action on Wyoming's SIP submittal addressing the prong 1 and 2 requirements as to the 2008 ozone NAAQS. WDEQ submitted a comment letter on November 23, 2016, requesting a 90-day extension to the 30-day comment period that the State asserted was necessary "to devote significant time and energy reviewing the EPA's basis for the approval and disapproval of the State Plans named in the Proposed Rule." The State noted that the EPA had taken over two years and nine months to review Wyoming's February 6, 2014 submittal, and that it was therefore reasonable to allow 120 days for the State to review the EPA's proposed action and to provide additional information in support of its original SIP submission. The EPA responded to WDEQ with a December 6, 2016 letter informing the State that we would not be extending the comment period for the proposed rule.[2]

Commenter Utility Air Regulatory Group (UARG) asserted that the EPA's refusal to extend the comment period is unreasonable. UARG stated that the EPA did not dispute that the State needed additional time, but rather denied the extension request on grounds that opposing counsel in a proposed consent decree negotiated between the EPA and the Sierra Club had refused to extend the negotiated deadline. *See Sierra Club* v. *McCarthy,* Case No. 3:15–cv–04328–JD, (N.D. Cal), Joint Motion to Enter Partial Consent Decree (Oct. 15, 2015) (Document 57). UARG asserted that, because the consent decree was still proposed and therefore had not been entered by the court, the EPA could have taken action to modify the proposed consent decree or filed a motion with the district court to modify the deadline. The commenter asserted that the EPA should have either taken one of these actions, or disputed WDEQ's statement that it needed additional time.

[2] EPA's December 6, 2016 letter is available in the docket for this action.

Several commenters asserted that Wyoming should be given an opportunity to review the recently-finalized CSAPR Update modeling to determine whether it is accurate or appropriate for Wyoming or the West overall. Commenter WEST Associates requested that the EPA allow Wyoming to re-examine and resubmit the prong 2 portion of the State's February 6, 2014 submittal before moving forward with a final action.

*Response:* The EPA disagrees with the commenters that the State has not had sufficient time to review the modeling analysis associated with the CSAPR Update Rulemaking. The EPA has provided several opportunities for states to review its modeling information relative to the 2008 ozone NAAQS. The EPA first issued a memo to all states on January 22, 2015, which included the preliminary modeling results assessing interstate transport with respect to the 2008 ozone NAAQS.[3] This preliminary modeling showed that in 2018 Wyoming would contribute to a maintenance receptor above the one percent screening threshold used in the original CSAPR rulemaking. The EPA subsequently issued updated modeling in an August 4, 2015 Notice of Data Availability (NODA), which included a docket with substantial technical information on how the modeling was conducted, notably an Air Quality Modeling Technical Support Document.[4] The updated air quality modeling also identified linkages between Wyoming and nonattainment and maintenance receptors in the Denver, Colorado area, and Wyoming submitted comments on the docket for the NODA. The modeling released in the NODA was used to support the proposed CSAPR Update, and the EPA provided additional, robust explanation and technical support for the modeling in that proposal (80 FR 75706, December 23, 2015) and again in the final rule (81 FR 74504, October 26, 2016), which once more demonstrated a linkage between Wyoming and a maintenance receptor in the Denver, Colorado area, as described in the EPA's

[3] "Information on the Interstate Transport "Good Neighbor" Provision for the 2008 Ozone National Ambient Air Quality Standards (NAAQS) under Clean Air Act (CAA) Section 110(a)(2)(D)(i)(I)." January 22, 2015. This document, and the associated January 2015 "Air Quality Modeling Technical Support Document for the 2008 Ozone NAAQS Transport Assessment," are available in the docket for this action.

[4] "Updated Air Quality Modeling Technical Support Document for the 2008 Ozone NAAQS Transport Assessment," August 2015.

proposed action on Wyoming's SIP submission.[5]

Moreover, the EPA proposed a similar action with respect to Utah's SIP submission addressing interstate transport with respect to the 2008 ozone NAAQS based on several deficiencies in that state's SIP and citing to the air quality modeling conducted to support the CSAPR Update, which demonstrated that Utah was also linked to nonattainment and maintenance receptors in Denver. May 10, 2016, 81 FR 28807. WDEQ reviewed and commented on the EPA's proposed disapproval action on Utah's interstate transport SIP submission in a June 9, 2016 comment letter submitted to the EPA.[6] In that letter, WDEQ discussed the impact that the EPA's application of the one percent screening threshold to states linked to the Denver receptors would have on the state of Wyoming. Accordingly, Wyoming had several opportunities (including time since January 2015) to review and comment on the EPA's modeling conducted over the last two years and, as necessary, to supplement its submission with additional technical analysis addressing the linkages repeatedly identified in the EPA's analysis.

Finally, although the commenters focus on concerns relative to an opportunity to review the applicability of the EPA's air quality modeling, they do not address the clear deficiency in Wyoming's SIP identified in the EPA's proposed disapproval as to the prong 2 requirements. As explained at proposal, in remanding the Clean Air Interstate Rule (CAIR) to the EPA in *North Carolina* v. *EPA,* the D.C. Circuit explained that the regulating authority must give the "interfere with maintenance" clause of section 110(a)(2)(D)(i)(I) "independent significance" by evaluating the impact of upwind state emissions on downwind areas that are at risk of future nonattainment, considering historic variability, even if they currently measure clean data.[7] Wyoming's SIP submission did not give the "interfere with maintenance" clause of section 110(a)(2)(D)(i)(I) independent significance because its analysis did not evaluate the potential impact of Wyoming emissions on areas that may have issues maintaining that air quality, even if they are currently measuring clean data. Thus, even absent the EPA's modeling, the SIP submission was deficient as to addressing the requirements of prong 2 with respect to the 2008 ozone NAAQS. Finally, the EPA notes that finalization of this action in no way precludes the state of Wyoming from subsequently submitting a SIP or SIP revision to address the deficiencies identified here.

*Comment:* Commenters WEST Associates and Basin Electric Power Cooperative (BEPC) stated that the EPA should wait for the litigation on the EPA's Federal Implementation Plan (FIP) for $NO_X$-related portions of the Wyoming Regional Haze SIP/FIP to be resolved before taking final action on prong 2 of Wyoming's February 6, 2014 submittal. The commenters asserted that it is counterproductive to engage in a prong 2 analysis for ozone while the EPA's Regional Haze $NO_X$ FIP is still under appeal before the United States Court of Appeals for the 10th Circuit. Commenter BEPC noted that the representatives for the Laramie River Station are currently participating in good faith negotiations with the EPA aimed at reaching an agreement on the Regional Haze $NO_X$ controls for the source.

*Response:* The EPA disagrees that it would be appropriate to wait until resolution of the legal challenges to the EPA's January 30, 2014 partial approval and partial disapproval of Wyoming's Regional Haze SIP and the EPA's concurrent promulgation of a FIP (79 FR 5032) before acting on Wyoming's prong 2 SIP submission. The Regional Haze and interstate transport planning requirements address different air quality concerns and are addressed under different statutory provisions and timeframes. The Regional Haze requirements concern visibility in Class I areas, whereas the interstate transport requirements are concerned with attainment and maintenance of the NAAQS, which are designed to address public health and welfare. Thus, while actions taken to address one set of requirements may assist with meeting the other set of requirements, neither Wyoming nor the commenters have explained how implementation of either the disputed SIP or FIP requirements for Regional Haze would necessarily address the 110(a)(2)(D)(i)(I) interstate transport requirements.

Moreover, Wyoming's prong 2 SIP was submitted on February 6, 2014 and was deemed complete by operation of law on August 7, 2014. Accordingly, CAA section 110(k)(2) requires the EPA to have taken final action to approve or disapprove a state's SIP within one year thereafter. As the EPA's action on this submission is already belated, the EPA does not find it appropriate to further delay action on the State's interstate transport SIP until there is resolution of litigation for an unrelated SIP requirement. Delaying action on the State's interstate transport SIP would only further delay potential emission reductions that may be necessary to address maintenance of the NAAQS in Denver, and thereby further delay the public health benefits that would accrue from such emission reductions. To the extent Wyoming believes that the $NO_X$ emission reductions that would be achieved through the State's implementation of the Regional Haze requirements will assist in meeting the State's interstate transport requirements, once the ongoing dispute is resolved, Wyoming may submit a revised SIP submission making an appropriate demonstration at that time.

*Comment:* Commenter WDEQ disagrees with the EPA's basis for disapproving the State's SIP submission as to the prong 2 requirements for the 2008 ozone NAAQS, and believes its February 6, 2014 submittal contains the necessary information to meet these requirements. WDEQ asserted that it had relied upon the EPA's most recent guidance at the time that directly addressed the prong 1 and 2 requirements. WDEQ noted that the EPA's September 2013 infrastructure SIP guidance did not address the prongs 1 and 2 requirements, and therefore relied on prior guidance documents issued in 2006 and 2007 regarding reliance on the EPA's prior interstate transport rulemaking, CAIR, for purposes of developing interstate transport SIPs.[8] WDEQ noted that these guidance documents state that a negative declaration from states not covered by CAIR certifying that the state meets prongs 1 and 2 is adequate to satisfy the requirements of CAA section 110(a)(2)(D)(i). WDEQ added that the guidance documents made no indication that the EPA expected states to consider contributions on days where downwind states measured an exceedance, neither in nonattainment nor maintenance areas. WDEQ contends that the EPA's proposed finding that WDEQ's analyses for prongs 1 and 2 are deficient because "transported

[5] The Air Quality Modeling Technical Support Document (AQM TSD) for each of these actions in the docket for this rulemaking.

[6] WDEQ's comment letter on the EPA's May 10, 2016 proposed action on the Utah submittal can be found on *www.regulations.gov* in the docket for that action, EPA–R08–OAR–2016–0107.

[7] 531 F.3d 896, 910–11 (D.C. Cir. 2008) (holding that the EPA must give "independent significance" to each prong of CAA section 110(a)(2)(D)(i)(I)).

[8] "Guidance for State Implementation Plan (SIP) Submissions to Meet Current Outstanding Obligations Under Section 110(a)(2)(D)(i) for the 8-Hour Ozone and $PM_{2.5}$ NAAQS," August 15, 2006, and "Guidance on SIP Elements Required Under Sections 110(a)(1) and (2) for the 1997 8-hour Ozone and $PM_{2.5}$ National Ambient Air Quality Standards," October 2, 2007.

emissions may cause an area to measure exceedances of the standard even if that area is not formally designated nonattainment by the EPA" is unreasonable because such a showing was not stated as a requirement for approval. WDEQ also noted that the EPA previously approved Wyoming's ozone infrastructure plan which used the same methodology and approach used by the State in its February 6, 2014 submittal.

WDEQ asserted that the EPA's proposed prong 2 disapproval indicates a radical change from its prior approach for determining adequacy of such plans. WDEQ asserted that the EPA has made statements indicating that the Agency has not evaluated the applicability of a transport rule in the western states, and that the EPA does not have an understanding of the nature of interstate ozone transport in the West. WDEQ suggested that the EPA should conduct interstate transport modeling and analysis specific to western states and then use the outcome of such analysis in the development and evaluation of future plans, but not plans previously submitted.

Commenter Western Energy Alliance stated that the EPA's proposed action runs contrary to long-standing agency practice of accepting a "weight of evidence" approach to evaluating interstate transport in downwind states, and contends that is inappropriate for the EPA to hold the WDEQ analysis to standards that did not exist when the SIP was developed.

*Response:* For the reasons described at proposal and in this final action, the EPA disagrees that Wyoming's SIP submission contains adequate provisions to address the prong 2 requirements with respect to the 2008 ozone NAAQS. In particular, the State did not give the "interfere with maintenance" clause of CAA section 110(a)(2)(D)(i)(I) independent significance, because its analysis did not attempt to evaluate the potential impact of Wyoming emissions on areas that may have issues maintaining that air quality, even if they currently measure clean data. As we noted at proposal, the EPA's most recent technical information demonstrates that emissions from Wyoming will impact air quality in other states relative to the 2008 ozone NAAQS.

The EPA disagrees that it needed to issue guidance for states to be aware of the requirement to evaluate areas that might be at risk of violating the standard, regardless of whether those areas are or have been designated nonattainment. The court in *North Carolina* was specifically concerned with areas not designated nonattainment when it rejected the view that "a state can never 'interfere with maintenance' unless the EPA determines that at one point it 'contribute[d] significantly to nonattainment.'" 531 F.3d at 910. The court pointed out that areas barely attaining the standard due in part to emissions from upwind sources would have "no recourse" pursuant to such an interpretation. *Id.* Accordingly, and as described in the proposal, the court explained that the regulatory authority must give "independent significance" to the maintenance prong of CAA section 110(a)(2)(D)(i)(I) by separately identifying such downwind areas for purposes of defining states' obligations pursuant to the good neighbor provision. Thus, the court's decision in *North Carolina* gave Wyoming sufficient notice, without further guidance from the EPA, that it needed to consider the potential impact of its emissions on areas that may have issues maintaining the standard. In addition, as noted at proposal, the EPA has stated in many actions before Wyoming made their submission that the obligation to address impacts on downwind air quality is independent of formal designations because exceedances can happen in any area.[9] Wyoming's SIP submission did not attempt to evaluate such areas and was thus deficient as to the prong 2 requirements. In so finding, the EPA is not engaged in a "radical departure" from its prior approach to evaluating SIPs, but merely measuring Wyoming's SIP against the statutory requirements, as interpreted by the court in *North Carolina*.[10]

While EPA appreciates the helpful role guidance can provide to states, whether the EPA chooses to issue guidance or not does not relieve either states of the obligation to submit SIPs that address CAA section 110(a)(2)(D)(i)(I) by the statutory deadline or the EPA of the obligation to review SIPs consistent with those statutory requirements. States bear the primary responsibility to demonstrate that their plans contain adequate provisions to address the statutory interstate transport provisions, specifically to demonstrate that the plan properly prohibits emissions that will significantly contribute to nonattainment or interfere with maintenance of the NAAQS in downwind states. Furthermore, in *EPA* v. *EME Homer City Generation, L.P.*, the Supreme Court clearly held that "nothing in the statute places the EPA under an obligation to provide specific metrics to States before they undertake to fulfill their good neighbor obligations." 134 S. Ct. 1584, 1601 (2014).[11] While the EPA has taken a different approach in some prior rulemakings by providing states with an opportunity to submit a SIP after we quantified the states' emission reduction obligations (*e.g.*, the $NO_X$ SIP Call and CAIR[12]), the CAA does not require such an approach. As discussed earlier, the EPA did provide information to assist states with developing or supplementing their SIP submittals for the 2008 ozone NAAQS, including the January 22, 2015 memorandum providing preliminary modeling information regarding potential downwind air quality problems and levels of upwind state contributions and the August 4, 2015 NODA providing

[9] The EPA notes that, in approving the state's SIP to address the requirements of section 110(a)(2)(D)(i)(I) with respect to the 1997 ozone NAAQS, the EPA supplemented the State's technical analysis in order to ensure that that independent analysis was given to the prong 2 requirements. See 73 FR 26023, May 8, 2008.

[10] *See, e.g.*, Clean Air Interstate Rule, 70 FR 25162, 25265 (May 12, 2005) ("As to impacts, CAA section 110(a)(2)(D) refers only to prevention of 'nonattainment' in other States, not to prevention of nonattainment in designated nonattainment areas or any similar formulation requiring that designations for downwind nonattainment areas must first have occurred."); Cross-State Air Pollution Rule, 76 FR 48208, 48211 (Aug. 8, 2011) (evaluating nonattainment and maintenance concerns based on modeled projections); Brief for Respondents U.S. Environmental Protection Agency at 23–24, *EME Homer City Generation, L.P.* v. *EPA*, Case No. 11–1302 (D.C. Cir. Jan. 16, 2015), ECF No. 1532516 (defending the EPA's identification of air quality problems in CSAPR independent of area designations). Cf. Final Response to Petition from New Jersey Regarding $SO_2$ Emissions From the Portland Generating Station, 76 FR 69052 (Nov. 7, 2011) (finding facility in violation of the prohibitions of CAA section 110(a)(2)(D)(i)(I) with respect to the 2010 $SO_2$ NAAQS prior to issuance of designations for that standard). Thus, it was unnecessary for the EPA to issue formal guidance to alert states to its interpretation of CAA section 110(a)(2)(D)(i)(I) requirements.

[11] "Nothing in the Act differentiates the Good Neighbor Provision from the several other matters a State must address in its SIP. Rather, the statute speaks without reservation: Once a NAAQS has been issued, a State 'shall' propose a SIP within three years, § 7410(a)(1), and that SIP 'shall' include, among other components, provisions adequate to satisfy the Good Neighbor Provision, § 7410(a)(2)." *EPA* v. *EME Homer City Generation, L.P.*, 134 S. Ct. at 1600; *see also Nat'l Ass'n of Mfrs.* v. *EPA*, 750 F.3d 921, (D.C. Cir. 2014) ("Finally, petitioners argue that EPA should not have issued, or at least should not require compliance with, the 2013 NAAQS without first providing States and regulated parties certain implementation guidance. We disagree. The NAAQS sets a clear numerical target specifying the maximum levels of emissions in the States. Under the law, States will devise implementation plans to meet that target. Nothing in the law dictates additional guidance from EPA at this point.").

[12] For information on the $NO_X$ SIP call see 63 FR 57356 (October 27, 1998). For information on CAIR (the Clean Air Interstate Rule) see 70 FR 25162 (May 12, 2005).

updated modeling. All of these documents consistently indicated that the EPA's technical analysis showed that Wyoming emissions contribute to downwind air quality problems with respect to the 2008 ozone NAAQS; yet Wyoming did not revise or supplement its SIP submittal with additional data showing the State had satisfied its statutory obligation.[13]

Moreover, it is inappropriate to rely on older EPA guidance to demonstrate compliance with the prong 2 requirements for the 2008 ozone NAAQS as those guidance documents do not address this specific NAAQS. Both the 2006 and 2007 guidance documents WDEQ claims to have relied on are inapplicable to the State's obligation to address the prong 2 requirements for the 2008 ozone NAAQS. First, WDEQ concedes that both guidance documents were aimed at the addressing the prongs 1 and 2 requirements for the 1997 ozone and fine particulate matter ($PM_{2.5}$) NAAQS, not the 2008 ozone NAAQS at issue here. To the extent the guidance documents recommended relying on the analysis conducted to support the CAIR rulemaking, that rulemaking also only addressed the 1997 standards, and not the more stringent 2008 ozone NAAQS. The guidance documents in no way suggested that states could rely on the analysis from CAIR to address the prong 1 and 2 requirements for any other NAAQS. Moreover, even were the CAIR analysis in some way relevant to the consideration of the 2008 ozone NAAQS, the EPA did not evaluate the impact of emissions from western states, including Wyoming, on air quality in the course of that rulemaking.[14] Accordingly, there would be no basis on which either Wyoming or the EPA could conclude that the CAIR analysis supports a conclusion that Wyoming does not contribute significantly to nonattainment or interfere with maintenance either for the NAAQS explicitly addressed by CAIR or for any other NAAQS.[15]

More importantly, in *North Carolina* v. *EPA*, the D.C. Circuit held that CAIR was "fundamentally flawed," 531 F.3d 896, 929 (D.C. Cir. 2008), in part because CAIR did not satisfy the statutory requirement to "achieve something measurable towards the goal of prohibiting sources 'within the State' from contributing to nonattainment or interfering with maintenance in 'any other State.'" *Id.* at 908. The D.C. Circuit held in *EME Homer City Generation, L.P.* v. *EPA*, "when our decision in North Carolina deemed CAIR to be an invalid effort to implement the requirements of the good neighbor provision, that ruling meant that the initial approval of the CAIR SIPs was in error at the time it was done." 795 F.3d 118, 133 (2015). States therefore did not need formal guidance to understand that it was no longer appropriate to rely on CAIR for purposes of satisfying the state's interstate transport obligations with respect to the 2008 ozone NAAQS, particularly when Wyoming submitted its SIP revision, six years after the *North Carolina* decision issued. Nonetheless, in a subsequent guidance document issued addressing the prong 1 and 2 requirements for the 2006 $PM_{2.5}$ NAAQS, the EPA explicitly stated that states should no longer rely on CAIR as a means of addressing the interstate transport requirements because the rule had been remanded by the court in *North Carolina*.[16]

Although WDEQ questions how it could have developed an approvable SIP without explicit guidance from the EPA and before the EPA had conducted air quality modeling evaluating downwind air quality and contributions, as explained earlier, states bear the primary responsibility for demonstrating that their plans contain adequate provisions to address the statutory interstate transport provisions whether or not the EPA issues such guidance or conducts such modeling. The commenters are correct to note that, in separate interstate transport actions, the EPA has reviewed and finalized action on interstate transport SIPs in states where air quality modeling was not available or where the total weight of evidence for finalizing action on the state's SIP was not solely based on air quality modeling.[17] As evidenced by these actions, consideration of monitoring data and wind patterns, properly used, can be relevant to evaluating potential interstate transport impacts, but such consideration does not absolve a state from evaluating its downwind impact regardless of formal area designations and considering the requirements of both prongs of the good neighbor provision. A state can and should submit all of the technical information it considers relevant to evaluate its contribution to downwind air quality, including anticipated changes in the emissions from sources within the state and any additional factors specific to the state that influence its emissions and air pollution which may transport to other states. As we noted above and as found by the Supreme Court in *EME Homer City Generation, L.P.*, the lack of guidance does not relieve either the states of the obligation to submit SIPs that address CAA section 110(a)(2)(D)(i)(I) nor the EPA of the obligation to review such SIPs consistent with the statutory requirements of the good neighbor provision. Though Wyoming submitted

[13] The EPA does not agree that its statements explaining the EPA's intent to work with western states are an indication that the EPA does not have an understanding of interstate transport in the West. The EPA's statement that the EPA and the states should have a "common understanding of interstate ozone transport in each part of the country" was intended to indicate the Agency's desire to work with the states to develop appropriate solutions to interstate transport problems, not an indication that the EPA lacks an understanding of interstate transport in the West. As explained further below, the EPA believes the modeling provides a reliable projection of the nature of interstate transport in western states.

[14] See AQM TSD for CAIR final rule, at 3. WDEQ's citation to CSAPR is also unavailing. CSAPR also addressed only the 1997 ozone NAAQS, not the more stringent 2008 ozone NAAQS, and did not evaluate interstate transport as to any of these standards in western states, including Wyoming. 76 FR 48229 (describing modeling of states in the central and eastern U.S.). Accordingly, it would also be inappropriate for Wyoming to conclude that, because the state was not included in CSAPR, it does not significantly contribute to nonattainment or interfere with maintenance of the 2008 ozone NAAQS.

[15] Additionally, the 2006 guidance to which WDEQ points explicitly noted that any negative declaration indicating a state was not covered by CAIR should also be supported by a technical demonstration. *See* 2006 iSIP Guidance, p. 5.

[16] Memo from William T. Harnett to Regional Air Division Directors, Regions I–X, "Guidance on SIP Elements Required Under Sections 110(a)(1) and (2) for the 2006 24-Hour Fine Particle ($PM_{2.5}$) National Ambient Air Quality Standards (NAAQS)" (Sept. 25, 2009), p. 3. Notably, this guidance document explicitly stated as to the prong 2 requirements, "This provision requires evaluation of impacts on areas of other states that are meeting the 2006 24-hour $PM_{2.5}$ NAAQS, not merely areas formerly designated nonattainment that are subject to a maintenance SIP. Therefore, the state's submission must explain whether or not emissions from the state have this impact and, if so, address the impact." *Id.* p. 3–4. The EPA continued by providing specific factors a state could consider: "A state's submission for this requirement should provide the technical information which the state deems appropriate to support its conclusions. Suitable information might include, but is not limited to, information concerning emissions in the state, meteorological conditions in the state and the potentially impacted states, monitored ambient concentrations in the state and the potentially impacted states, and air quality modeling." *Id.* p. 4.

[17] See, *e.g.*, Air Quality State Implementation Plans; Approvals and Promulgations: Utah; Interstate Transport of Pollution for the 2006 $PM_{2.5}$ NAAQS May 20, 2013 (78 FR 29314); Final Rule, 78 FR 48615 (August 9, 2013); Approval and Promulgation of Implementation Plans; State of California; Interstate Transport of Pollution; Significant Contribution to Nonattainment and Interference With Maintenance Requirements, Proposed Rule, 76 FR 146516, 14616–14626 (March 17, 2011); Final Rule, 76 FR 34872 (June 15, 2011); Approval and Promulgation of State Implementation Plans; State of Colorado; Interstate Transport of Pollution for the 2006 24-Hour $PM_{2.5}$ NAAQS, Proposed Rule, 80 FR 27121, 27124–27125 (May 12, 2015); Final Rule, 80 FR 47862 (August 10, 2015).

a technical analysis that considers certain factors which align with the EPA's actions on prior SIP submissions, the EPA could not conclude based on this analysis that the State is not interfering with maintenance of the NAAQS in other states, particularly in light of air quality modeling demonstrating that emissions from Wyoming impact air quality in Denver, Colorado. The basis for this conclusion was explained in the proposal for this final action.

*Comment:* Commenter WDEQ stated that the EPA is applying new criteria retroactively. WDEQ asserted that the EPA had not established any technical requirements for demonstrating impacts on nearby states at the time of Wyoming's February 6, 2014 submission, but then retroactively applied "a technical analysis developed almost three years after Wyoming's submittal to evaluate Wyoming's plan." The State submitted a timeline to argue that the EPA's proposed action is out of sequence with appropriate rulemakings. Commenter WDEQ noted that it had commented on the EPA's August 4, 2015 NODA, "stating that it understood that the rule applied only to eastern states and would provide additional comments when the EPA proposed additional SIP requirements for western states." Wyoming asserted that the EPA did not provide a response to this comment. Finally, WDEQ stated that the EPA failed to indicate that a revision to submitted plans might be required, as it had done in its October 2, 2007 guidance document.

*Response:* As discussed previously, the EPA's primary basis for disapproving Wyoming's prong 2 SIP submission as to the 2008 ozone NAAQS is based on the State not giving the "interfere with maintenance" clause of CAA section 110(a)(2)(D)(i)(I) independent significance as required by *North Carolina,* a decision which was issued six years before Wyoming submitted the SIP at issue here. The EPA also has technical information demonstrating that emissions from Wyoming impact a downwind maintenance receptor in Denver, Colorado, but even absent this information, the State did not provide an adequate technical analysis meeting the basic statutory requirements outlined by the D.C. Circuit and supporting its conclusion.

Wyoming is correct to note that the EPA stated the CSAPR Update does not apply to Wyoming, and the final CSAPR Update does not impose any implementation obligations on the state of Wyoming or sources within the State. 81 FR 74523, October 26, 2016. However, in the context of that rulemaking, the EPA developed technical information relevant to western states, including Wyoming, while in this final action on the Wyoming SIP the EPA is adopting an approach to analyzing that data as it applies to Wyoming. While the modeling cited in this action was conducted after Wyoming submitted its SIP addressing the requirements of CAA section 110(a)(2)(D)(i)(I) for the 2008 ozone NAAQS, it would not be appropriate for the EPA to ignore modeling data indicating that the emissions from the State would impact air quality in other states. Rather, the EPA must evaluate each SIP submission based on the information available and consistent with the Act as we and courts interpret it at the time of our action, not at the time of the state's submittal. Wyoming was aware that the EPA had data indicating a potential impact as early as January 2015, but did not submit additional information to supplement or revise its SIP submission addressing CAA section 110(a)(2)(D)(i)(I) requirements for the 2008 ozone NAAQS.[18] Wyoming also had an opportunity to review the modeling information in the context of the EPA's proposed action on the SIP submission, and could comment on the appropriateness of using the modeling for this purpose, and how the EPA should interpret the modeling results as they apply to Wyoming, which both Wyoming and a number of other commenters have done. The EPA addresses those specific comments regarding the EPA's technical analysis below.

*Comment:* Commenter WDEQ stated that the EPA's use of CSAPR Update modeling as a screening tool is not appropriate for interstate transport in the West, citing its June 9, 2016 comment letter opposing the EPA's proposed action for Utah. Commenters UARG, WEST Associates, and BEPC also referenced or attached comment letters submitted on the CSAPR Update proposal.[19]

*Response:* Commenters should identify with reasonable specificity any objections or issues with the proposed action rather than only referring or citing to comments made in other contexts. It is not appropriate to cite to or attach comments made on separate rulemaking actions without identifying which portions of such comments are relevant to the present proposed action. Accordingly, the EPA is not here responding to comments made on separate rulemaking actions.

*Comment:* Commenter Western Energy Alliance stated that the CSAPR Update modeling results are flawed because the model has not been adapted to the unique concerns of western states. The commenter stated that "the CSAPR model fails to account for the topography, altitude, and climate of the western United States. Climate factors characteristic of the West include stratospheric intrusions, a long and severe wildfire season, abundant sunshine, and lack of summertime precipitation, all of which the CSAPR model fails to adequately consider." The commenter asserted that the EPA did not provide evidence explaining why the modeling results need not consider these factors. Finally, the commenter stated that the EPA inappropriately put the onus on the State to provide evidence to support or deny the EPA's decisions on the appropriateness of the CSAPR modeling, while the burden should rest on the EPA to justify the reversal of its long-standing policy about the CSAPR modeling deficiencies in the West.

Commenter WEST Associates stated that the EPA had noted in the CSAPR Update proposal that the modeling for that rule was conducted specifically for Eastern states. The commenter also referenced language from the CSAPR Update and the Wyoming proposal in which the EPA stated that there may be geographically specific factors to consider in evaluating ozone transport in the West affecting modeling and modeling results. Citing 81 FR 81715, November 18, 2016. The commenter suggested that these factors could include broad expanses of public land, high altitude settings, international transport and elevated background ozone concentrations that can comprise a significant portion of ambient concentrations, especially on high ozone days in the Western United States.

*Response:* The commenters do not provide evidence or technical bases for their claims about the inadequacies of the modeling for projecting air quality and contributions in the West. As described in the CSAPR Update Final Air Quality Modeling Technical

[18] The EPA explained in issuing the January 2015 memo that its "goal is to provide information and to initiate discussions that inform state development and EPA review of 'Good Neighbor' SIPs, and, where appropriate, to facilitate state efforts to supplement or resubmit their 'Good Neighbor' SIPs," at 1. With respect to western states, the EPA indicated it would evaluate potential linkages on a case-by-case basis and recommended that states consult with the EPA regional offices. *Id.* at 4.

[19] These comment letters can be found in the docket for the CSAPR Update, EPA–HQ–OAR–2015–0500.

Support Document (2016 AQM TSD),[20] the CSAPR modeling was performed for a nationwide domain that accounted for the differences in emissions (including actual wild fires), meteorology, and topography in various regions across the U.S. The precipitation and other meteorological factors used in the EPA's modeling were found to correspond closely to measured data.[21] The 2016 AQM TSD includes an evaluation of 2011 base year model performance for 8-hour daily maximum concentrations on a regional and statewide basis as well as for individual monitoring sites. For example, the performance evaluation results for Wyoming indicate that the model tends to under predict measured 8-hour daily maximum ozone concentrations by 10.3 percent, on average, during the period May through September, which is the season the EPA used for analyzing 2017 model-predicted interstate contributions. For the Douglas County maintenance receptor in Colorado, the 2011 modeling under predicts measured 8-hour daily maximum ozone concentrations by 7.5 percent, on average for the May through September time period. As described more fully in the 2016 AQM TSD, the EPA's use of the Comprehensive Air Quality Model with Extensions (CAMx) source apportionment modeling for the CSAPR Update is appropriate and the Agency finds its use sufficient for the purposes of assessing and identifying downwind air quality problems and contributions from upwind states in both the eastern and the western U.S.[22] The emissions modeling TSD for the CSAPR Update final rule "Preparation of Emission Inventories for the version 6.3, 2011 Emissions Modeling Platform" describes how fire emissions were developed and modeled using a consistent approach for the contiguous United States. As described earlier, the most updated modeling continues to indicate that emissions from Wyoming will interfere with maintenance of the 2008 ozone NAAQS at one receptor in the Denver, Colorado area (*i.e.*, Douglas County).

The EPA does not find the information provided by the commenters to indicate flaws in the modeling conducted by the EPA. Rather, the commenters point to factors which the CSAPR Update modeling specifically took into account.[23] As described in the CAMx model User's Guide, "CAMx is an Eulerian photochemical dispersion model that allows for integrated "one-atmosphere" assessments of tropospheric air pollution (ozone, particulates, air toxics, and mercury) over spatial scales ranging from neighborhoods to continents. It is designed to unify all of the technical features required of "state-of-the-science" air quality models into a single open-source system that is computationally efficient, flexible, and publicly available."[24] For these reasons, the EPA disagrees with these comments and finds the use of the CSAPR Update modeling to evaluate Wyoming's contributions to interstate transport is reasonable and supported.

The EPA did acknowledge in the CSAPR Update final rule that "for western states, there may be geographically specific factors to consider in evaluating interstate ozone pollution transport," and that "given the near-term 2017 analysis and implementation of the CSAPR Update FIPs, the EPA focused this rulemaking on eastern states where the CSAPR method for assessing collective contribution has proven effective." 81 FR 74523, October 26, 2016. However, these statements were not an indication that the EPA believed the modeling of air quality in the West was flawed. Rather, the EPA was suggesting that additional factors may be relevant in determining whether an upwind state that was projected to impact air quality in a downwind state should be determined to significantly contribute to nonattainment or interfere with maintenance of the NAAQS in that state. The EPA's recent action approving Arizona's interstate transport SIP, discussed in more detail at proposal, demonstrates some of the geographically specific factors that the EPA was referring to with these statements. *See* Proposed Rule, 81 FR 15202, March 22, 2016; Final Rule, 81 FR 31513, May 19, 2016.[25]

*Comment:* Commenter Western Energy Alliance stated that it is unclear whether the CSAPR Update modeling accounted for background ozone, which can contribute up to 60 ppb in the western U.S. Commenters West Associates and BEPC also note that approximately half of the ozone measured at the Denver monitor is from background ozone. These commenters suggest that this presents "nearly identical" facts to the grounds used to propose approval of Nevada's interstate transport SIP for the 2008 ozone NAAQS. 81 FR 87859, December 6, 2016.

*Response:* The commenters do not explain how the EPA's modeling has allegedly failed to account for background ozone. This modeling includes emissions from biogenic sources which are a major component of natural background ozone that is particularly relevant to summertime high ozone concentrations. The modeling also includes emissions from large portions of Canada and Mexico that are adjacent to the U.S. within the modeling domain. Background ozone due to transport from more distant international sources was accounted for by the use of global air quality modeling to provide ozone and precursor concentrations along the boundary of the modeling domain. The commenters

[20] "Air Quality Modeling Technical Support Document for the Final Cross State Air Pollution Rule Update." August 2016. This document was included in the docket for the proposed action.

[21] "Meteorological Model Performance for Annual 2011 Simulation WRF v3.4" in the docket for the CSAPR Update Rulemaking, at EPA–HQ–OAR–2015–0500–0076.

[22] "The EPA used CAMx photochemical source apportionment modeling to quantify the impact of emissions in specific upwind states on downwind nonattainment and maintenance receptors for 8-hour ozone. CAMx employs enhanced source apportionment techniques that track the formation and transport of ozone from specific emissions sources and calculates the contribution of sources and precursors to ozone for individual receptor locations. The strength of the photochemical model source apportionment technique is that all modeled ozone at a given receptor location in the modeling domain is tracked back to specific sources of emissions and boundary conditions to fully characterize culpable sources." 80 FR 75726, December 3, 2015.

[23] Stratospheric intrusions are short-term events that have a relatively local impact on ground-level ozone concentrations and are unrelated to the impacts of interstate transport on downwind ozone formed from anthropogenic sources in upwind states. The modeling performed by the EPA did not explicitly account for these events within the modeling domain. However, the global modeling EPA used to provide boundary concentrations that reflect international transport into the domain did simulate processes that can result in stratospheric intrusions.

[24] User's Guide Comprehensive Air Quality Model with Extensions version 6.2. Environ International Corporation, Novato, CA, March, 2015.

[25] *See also* Notice of Availability of the Environmental Protection Agency's Preliminary Interstate Ozone Transport Modeling Data for the 2015 Ozone National Ambient Air Quality Standard (NAAQS), 82 FR 1740 (January 6, 2017): "While the 1 percent screening threshold has been traditionally applied to evaluate upwind state linkages in eastern states where such collective contribution was identified, the EPA noted in the CSAPR Update that, as to western states, there may be geographically specific factors to consider in determining whether the 1 percent screening threshold is appropriate. For certain receptors, where the collective contribution of emissions from one or more upwind states may not be a considerable portion of the ozone concentration at the downwind receptor, the EPA and states have considered, and could continue to consider, other factors to evaluate those states' planning obligation pursuant to the Good Neighbor provision. However, where the collective contribution of emissions from one or more upwind states is responsible for a considerable portion of the downwind air quality problem, the CSAPR framework treats a contribution from an individual state at or above 1 percent of the NAAQS as significant, and this reasoning applies regardless of where the receptor is geographically located."

have not explained how they believe the EPA must consider background ozone levels in evaluating interstate transport in the West, nor cited any specific provision of the statute that specifically requires such consideration. While the EPA does not view the obligation under the good neighbor provision as a requirement for upwind states to bear all of the burden for resolving downwind air quality problems, the CAA requires that upwind states (as well as the downwind states themselves) take reasonable steps to control emissions impacting downwind air quality even in areas affected by high levels of background concentrations of ozone. Were the EPA to absolve upwind states of the responsibility to make such reasonable reductions simply because of such background ozone concentrations, the area's citizens would suffer the health and environmental consequences of such inaction.

Moreover, the EPA does not agree that, because background ozone contributes to the projected design values at the Denver monitor, the factual circumstances are "nearly identical" to the circumstances supporting the proposed approval of the Nevada SIP. In fact, the circumstances here are substantially different than the facts considered in the Nevada SIP approval. The EPA proposed to approve Nevada's SIP submission because, among other factors, it determined that the cumulative contribution from upwind states to the downwind receptors to which Nevada was linked (all of which were located in California) was low relative to the cumulative contribution to air quality problems similarly identified elsewhere in the country and because Nevada was the only state contributing above the one percent threshold to those receptors. 81 FR 87860, Dec. 6, 2016. Because the EPA determined that emissions that result in transported ozone from upwind states have limited impacts on the projected air quality problems at the California receptors, the EPA proposed to determine that the sites should not be treated as receptors for purposes of determining interstate transport obligations. *Id.* This is in contrast to the air quality problem identified at the Denver receptor wherein the EPA determined that a significant portion of the ozone concentration was attributable to the collective contribution from anthropogenic emissions in multiple states, three of which contribute at or above the one percent screening threshold. 81 FR 81714 through 81715, December 6, 2016. The Denver receptor is comparable to receptors the EPA has addressed in the East in rulemakings such as the CSAPR Update wherein the EPA determined that downwind air quality problems resulted in part from the contributions of multiple upwind states that, although individually relatively small, collectively contribute a large portion of the ozone concentration at downwind receptors. *See* 81 FR 74518–19.[26]

Moreover, consistent with the EPA's approach to background concentrations in this action, the EPA disagreed with Nevada's contention that background concentrations should necessarily excuse an upwind state from reducing emissions where such emissions reductions may nonetheless improve downwind air quality. 81 FR 87860. The EPA noted that even areas with high background ozone may still have a relatively large amount of ozone from the collective contribution of upwind U.S. emissions. *Id.* Therefore, regardless of the level of background ozone, emissions reductions from upwind states may be an important component of solving the local nonattainment problem.

*Comment:* Commenter WDEQ stated that the EPA's decisions on interstate transport SIPs do not follow a consistent approach, and that the EPA is applying a piecemeal decision-making approach rather than a systematic analysis. WDEQ also asserted that the EPA is making arbitrary decisions as to what constitutes "significant" or "insignificant" contribution levels. WDEQ asserted that the EPA is not applying the one percent threshold as a screening threshold, as stated in the proposal. Referring to the EPA's October 19, 2016 final action on the Utah interstate transport SIP (81 FR 71991), WDEQ argued that the EPA gave no consideration to information submitted by Utah in its analysis beyond the one percent contribution. WDEQ further stated that the EPA approved the Colorado interstate transport submittal which otherwise "did not provide a detailed analysis supporting its conclusion, including any quantification of the distance to other nonattainment areas or the amount of ozone emission reductions within the state and over what timeframe," solely because it was modeled below the one percent contribution threshold. 80 FR 72939, November 23, 2015. WDEQ also asserted that the Colorado approval is counter to the EPA actions disapproving plans from western states on the basis that they did not provide enough technical analysis.

WDEQ further asserted that the approval of the Arizona interstate transport SIP for 2008 ozone was inconsistent with the proposed action on Wyoming, because the EPA based its Arizona action on a weight of evidence analysis and a determination that Arizona's contribution was "negligible" although it was over the one percent threshold. The State also asked the EPA to explain why it determined the cumulative contribution percentages for Arizona were negligible, and at what percentage such contributions became negligible.

*Response:* The EPA disagrees that it has taken an inconsistent approach to reviewing states' interstate transport SIPs with respect to the 2008 ozone NAAQS. Where the EPA has determined that a state's SIP has not addressed all of the statutory requirements or provided a technical analysis to justify its conclusion regarding the state's impact on downwind air quality problems, the EPA has identified those deficiencies in acting upon the state's SIP submission. Where the EPA had analysis available that nonetheless supported the state's conclusion despite these deficiencies in the state's SIP submission, the EPA has proposed to approve the state's SIP submission, as it did with Colorado. However, where the EPA does not have its own analysis to support a state's conclusion, it does not have a basis to nonetheless approve the state's otherwise deficient SIP submission, as in Utah for prong 2. Accordingly, the EPA is in this rule finalizing approval as to Wyoming's otherwise deficient prong 1 demonstration because the EPA has an independent analysis that supports the conclusion that the state does not significantly contribute to nonattainment downwind. However, the EPA cannot approve Wyoming's deficient prong 2 demonstration because it has no independent basis on which it can conclude that the state does not interfere with maintenance of the 2008 ozone NAAQS downwind.

The EPA furthermore disagrees that it is not using the one percent contribution threshold as a screening threshold. States are not determined to significantly contribute to nonattainment or interfere with maintenance downwind merely because impacts from the state exceed the one percent threshold. As noted in the proposal for this final action, the one

[26] The EPA's analysis showed, for example, that upwind states collectively contributed in the range of 9.7% to 12.6% to the total ozone concentrations for receptors in Denton County, Harris County, and Tarrant County, Texas. This range is similar to the collective contribution at the Douglas County receptor in Colorado. See document EPA–R08–OAR–2016–0521–0002, "Final CSAPR Update_Ozone Design Values & Contributions_All Sites," in the docket for this action.

percent threshold identifies a state as "linked," prompting further inquiry into whether the contributions are significant and whether there are cost-effective controls that can be employed to reduce emissions. In the case of Colorado, as it was determined that state was not linked to any downwind nonattainment or maintenance receptors, further inquiry was unnecessary in spite of deficiencies identified with the Colorado transport analysis. In the case of states like Wyoming and Utah, the linkage to Denver area receptors indicated that each state's emissions require further evaluation, taking into account both air quality and cost considerations, to determine what, if any, emissions reductions might be necessary to address the states' emission reduction obligation pursuant to 110(a)(2)(D)(i)(I). As Wyoming's SIP submission does not adequately evaluate whether additional emissions reductions are necessary or achievable, the EPA could not conclude that the State's SIP submission had demonstrated that the state prohibits emissions that interfere with maintenance of the NAAQS downwind.

With regard to the EPA's action on the Arizona submittal, the EPA found that the maximum total contribution from anthropogenic emissions in all states to either of the two California receptors to which Arizona contributed above the one percent threshold was 4.4 percent of the total ozone concentration at that receptor, and that only one state contributed above the one percent threshold. 81 FR 15203, March 22, 2016. Thus, the EPA determined that, unlike receptors identified in prior rulemakings, the air quality problems at the California receptors could not be attributed to the collective contribution of numerous upwind states. Given this information, the EPA determined that interstate transport to the California receptors is negligible overall, meaning that all states together (including Arizona) do not contribute significantly to the ozone problems at these receptors. Because the EPA determined that emissions that result in transported ozone from upwind states have limited impacts on the projected air quality problems at the California receptors, the EPA determined that the sites should not be treated as receptors for purposes of determining interstate transport obligations. *Id.* As stated in the proposal for this final action, EPA found that the contribution to ozone concentrations from all states upwind of the Douglas County, Colorado maintenance receptor is about 9.7 percent, and that three upwind states made contributions greater than one percent to the receptor. 81 FR 81715, November 18, 2016. The EPA has not defined a specific level which delineates between "negligible" and "significant" collective contribution, but has rather looked at each of these cases individually and reached conclusions based on our review of the information specific to each case. In the case of the Douglas County, Colorado receptor, the contributions from upwind states are comparable to receptors the EPA has addressed in the East in rulemakings such as the CSAPR Update wherein the EPA determined that downwind air quality problems resulted in part from the relatively small individual contributions of upwind states that collectively contribute a large portion of the ozone concentration at downwind receptors. *See* 81 FR 74518 through 74519.[27] Thus, the EPA has identified no basis on which it can distinguish the Douglas County, Colorado receptor from those receptors addressed in the East—nor have the commenters presented any such basis for the EPA to make a distinction when upwind states contribute more than twice as much to downwind nonattainment than was present at the California receptors addressed in the Arizona action.

*Comment:* Commenter WDEQ stated that the EPA's analysis does not consider new emissions information or reductions since the most recent modeling. The State asserted that because the EPA conducted the CSAPR Update modeling using an emissions inventory from a 2011 base year, the analysis fails to account for any emissions reductions in Wyoming between 2011 and when the updated modeling was conducted. WDEQ specifically pointed to the following ozone emissions reduction measures in the State: Participation in the EPA's Ozone Advance Program; emissions reductions in the Upper Green River Basin (UGRB), a marginal nonattainment area which was determined by the EPA to have timely attained the 2008 Ozone NAAQS on May 4, 2016 (81 FR 26697); reductions in $NO_X$ emissions from 2011 and 2014 of 34 percent for Title V facilities and 76 percent for non-Title V facilities that are not oil and gas reductions facilities. The State "believes a more accurate assessment of Wyoming's contribution to the receptor in Colorado could be made using more recent emission inventory data available from the Division," and asked that the EPA use more recent data to conduct modeling for Wyoming.

The State asserted that it had made several attempts to provide the EPA with additional information, citing its November 23, 2016 letter requesting an extension to the comment period as an example, and claimed that the EPA has told Wyoming it will not consider any additional information beyond the February 6, 2014 submission.

*Response:* The EPA disagrees that the CSAPR Update modeling failed to account for any emissions reductions in Wyoming between 2011 and 2016, despite the use of a 2011 base year. As shown in the supporting documentation for the CSAPR Update Rule, significant emissions reductions for multiple pollutants, including $NO_X$, were accounted for in the modeling analysis.[28] At the EPA's request, on September 13, 2016 and September 14, 2016, the State submitted to the EPA an emissions inventory and an inventory summary that compared 2011 to 2014 Wyoming $NO_X$ and VOC emissions.[29] The State also included two graphs describing Wyoming $NO_X$ and VOC emission reductions in certain sectors in its December 19, 2016 comment letter on the proposal for this final action. EPA staff compared this information to the emissions reductions anticipated from base case year 2011 to projected future year 2017 in the CSAPR Update Modeling, and found that $NO_X$ and VOC emissions reductions included in the CSAPR Update modeling were greater than the $NO_X$ and VOC reductions in Wyoming emissions from 2011 to 2014, per the State's inventory.[30] The EPA does not dispute that $NO_X$ emission reductions have taken place in Wyoming between 2011 and 2014, as the inventory and the December 19, 2016 comment letter graphs indicate substantial reductions have occurred in certain sectors. However, the inventory

[27] The EPA's analysis showed, for example, that upwind states collectively contributed in the range of 9.7% to 12.6% to the total ozone concentrations for receptors in Denton County, Harris County, and Tarrant County, Texas. This range is similar to the collective contribution at the Douglas County receptor in Colorado. See document EPA–R08–OAR–2016–0521–0002, "Final CSAPR Update_Ozone Design Values & Contributions_All Sites," in the docket for this action.

[28] "Final Rule Emissions Modeling TSD: Preparation of Emissions Inventories for the Version 6.3, 2011 Emissions Modeling Platform" in the docket for the CSAPR Update Rulemaking, at EPA–HQ–OAR–2015–0500–0523.

[29] See September 12–14, 2016 email exchanges between Adam Clark, EPA Region 8, and Amber Potts and Tyler Ward, WDEQ, as well as attached emissions inventory documents submitted by the State, in the docket for this action.

[30] See document "2011ek_2017ek_state_full_SCC_summary" in the docket for this action. This document is also available in the docket for the CSAPR Update Rulemaking at EPA–HQ–OAR–2015–0500–0498.

taken on its own did not lead the EPA to the conclusion that the $NO_X$ reductions during this time were sufficient to show that Wyoming does not interfere with maintenance of the 2008 ozone NAAQS. In other words, the information was inconclusive, and so did not alter the EPA's decision to propose disapproval for prong 2. The EPA has reached the same conclusion regarding the comment letter graphs, and is therefore finalizing disapproval as to the prong 2 requirements.

The EPA also disagrees that the State made several attempts to provide EPA with additional information. The State submitted the aforementioned September 13, 2016 inventory, which the EPA reviewed. The State also submitted the June 9, 2016 comment letter on the Utah proposal as discussed previously, and the November 23, 2016 letter requesting an extension to the comment period. The EPA has reviewed and addressed all of these documents. Finally, the EPA is unaware that any staff told Wyoming that we will not consider any additional information beyond the February 6, 2014 submission. The EPA has continuously encouraged the State to submit additional technical information that might better inform our analysis, as discussed in detail earlier.

*Comment:* Commenter WDEQ asked whether the EPA's CSAPR Update modeling considered the impact ozone sources in the Colorado portion of the Front Range Urban Corridor, which extends from Pueblo, Colorado to Cheyenne, Wyoming, may have on attainment in Wyoming. The State then asserted that, because 98 percent of the population in this corridor resides in Colorado, and because the population in the Colorado portion of the corridor is much larger and denser than the population of the state of Wyoming, the mobile source and urban emissions emanating from Colorado are far more likely to contribute to Wyoming than the other way around.

Commenter Western Energy Alliance stated that Colorado's ozone nonattainment is affected by the northern Front Range's climate, geography, and local emissions sources, and not by Wyoming emissions. The commenter supported Wyoming's assessment that the year-round westerly prevailing wind direction makes it reasonable to infer that Cheyenne is not a driving cause of ozone nonattainment in Colorado's Front Range.

Commenter Western Energy Alliance also asserted that Wyoming is not contributing to ozone nonattainment in the Uintah Basin or in the Salt Lake Valley in Utah.

*Response:* In the CSAPR Update modeling, the EPA modeled contributions from all 48 contiguous states, including Colorado, to receptors in Wyoming. As the EPA did not project any nonattainment or maintenance receptors in the state of Wyoming for 2017, the EPA has determined that no state contributes significantly to nonattainment or interferes with maintenance of the 2008 ozone NAAQS in Wyoming. The EPA approved prongs 1 and 2 of Colorado's 2008 ozone interstate transport SIP on February 16, 2016. 81 FR 7706. The EPA did not receive any comments requesting that either portion of the Colorado SIP submission be disapproved.

The EPA agrees that Colorado emissions contribute more to ozone pollution in the Denver area than emissions from any other state. Indeed, the CSAPR Update modeling projected that Colorado would contribute 34.6% percent of the ozone at the Douglas County, Colorado maintenance receptor in 2017, compared to 9.7 percent of the emissions from all other states and tribes combined, with Wyoming projected to contribute 1.5 percent of the ozone. Although there are intrastate contributions to maintenance receptors in Denver, Colorado, those contributions do not relieve upwind states, like Wyoming, from controlling their within state emissions that significantly contribute to a downwind state's nonattainment or interfere with maintenance of the NAAQS in other states.

Thus, while CAA section 110(a)(2)(D)(i)(I) does not hold upwind areas solely responsible for attainment and maintenance of the NAAQS in downwind states, the statute requires upwind states to address their fair share of downwind air quality problems. As noted, the EPA finds that Wyoming contributions to the Douglas County, Colorado maintenance receptor are such that the State's emissions require further evaluation of potential emission reduction obligations pursuant to 110(a)(2)(D)(i)(I).

Regarding Wyoming's contribution to ozone issues in Utah, the EPA has not found that Wyoming emissions contribute significantly to nonattainment or interfere with maintenance of the 2008 ozone NAAQS in Utah.

*Comment:* Commenter WDEQ asserted that "EPA has not yet worked with western states or western regional planning organizations on region-appropriate analysis for interstate transport." The State listed examples in which the EPA committed to working with western states to address interstate transport.

Commenter WDEQ requested that the EPA honor the commitment made in the Utah Final Rulemaking to "assisting the states in conducting or reviewing air quality modeling and other relevant technical information for the purposes of determining compliance with CAA section 110(a)(2)(D)(i)(I)." 81 FR 71996, October 19, 2016. Specifically, the State requested that the EPA commit to work with WDEQ to conduct the necessary modeling and analysis for developing a SIP revision in the event that the EPA finalizes the proposed disapproval.

*Response:* Prior to the State's February 2014 SIP submission, the EPA held a meeting in Denver, Colorado on April 17, 2013 (and held a conference call) with western states to discuss next steps to address transport of air pollution across state boundaries. Subsequent to the release of the January 2015 memo and the August 2015 NODA with air quality modeling results, the EPA notes that it also held a webinar, a workshop and conference calls with states. Moreover, while we appreciate the importance of working with states in the SIP development process, states have the primary responsibility for developing SIPs to address the requirements of CAA section 110(a)(2)(D)(i)(I). As noted earlier, in *EPA* v. *EME Homer City Generation, L.P.*, the Supreme Court clearly held that "nothing in the statute places the EPA under an obligation to provide specific metrics to States before they undertake to fulfill their good neighbor obligations." 134 S. Ct. at 1601. However, EPA remains committed to working with the State on reviewing technical information for the purposes of determining compliance with the requirements of 110(a)(2)(D)(i)(I).

*Comment:* Commenter Western Energy Alliance stated that "EPA has failed to provide sufficient evidence that it reviewed and considered state exceptional events packages that may provide mitigating circumstances for NAAQS violations based on events such as wildfires or stratospheric intrusions of ozone."

*Response:* In order for emissions to be excluded on the basis of an exceptional event per CAA 319(b), all exceptional event criteria applicable to the activity must be met. No exceptional event demonstrations relevant to the Douglas County, Colorado monitor were submitted to the EPA for evaluation, so no evidence was available with regard to the impact of exceptional event emissions on the violating monitor in the design value period considered. To the extent that the EPA approves an

exceptional events demonstration for this area in the future, the EPA can consider the impacts that action or other new information would have on the modeling results either in reviewing a subsequent SIP submission from Wyoming, which the State may submit at any time, or in evaluating whether any emissions reductions are necessary to address downwind air quality in addressing the Agency's FIP obligation triggered by this disapproval.

*Comment:* Commenter Sierra Club stated that the EPA should disapprove Wyoming's prong 1 submission for the 2008 ozone NAAQS. The commenter asserted that the Douglas County, Colorado maintenance receptor (to which Wyoming was modeled to contribute above one percent)[31] should instead be a nonattainment receptor, but it is not because the modeling under-predicts the receptor's 2017 ozone design value. The commenter based this assertion on a weight of evidence approach using ambient air monitoring data collected at the receptor. The commenter stated that such a weight of evidence approach was appropriate to determine this receptor should be nonattainment, and noted that the EPA had used a weight of evidence approach in its action on Arizona's transport SIP. The CSAPR Update modeling projected that the Douglas County, Colorado receptor would have a 2017 average design value of 75.5 ppb, with a maximum design value of 77.6 ppb.[32] The commenter first asserted that the 75.5 ppb level should indicate nonattainment rather than maintenance because the design value exceeds the 75.0 level of the NAAQS, referring to EPA's basis for a maintenance categorization as "bad math." The commenter then stated that the Douglas County, Colorado receptor will indeed be nonattainment for the 2015–2017 period. The commenter included the 4th highest daily maximum values, on which the 2008 ozone NAAQS is based, for the years 2010 through 2016, which the EPA has replicated (with edits) in Table 1, below.

TABLE 1—4TH HIGHEST DAILY MAX AT DOUGLAS COUNTY, COLORADO RECEPTOR

| Year | 4th Max (ppb) |
|---|---|
| 2016 | 78 |
| 2015 | 81 |
| 2014 | 74 |
| 2013 | 83 |
| 2012 | 79 |
| 2011 | 81 |
| 2010 | 78 |

The commenter stated that the 2015–2017 monitored design value at the Douglas County, Colorado receptor could only attain the NAAQS if the receptor recorded a 4th daily maximum value of 66 ppb in 2017, a value well below the smallest value since 2010. The commenter asserted that the previous 7 years of monitoring data provide a weight of evidence analysis demonstrating that this receptor will be nonattainment for the 2015–2017 design value period. The commenter also asserted that it is unsurprising that the CSAPR Update modeling analysis under-predicts the 2017 design values because it included 2009 monitoring data which was impacted by the Great Recession, during which time ozone levels decreased. The commenter therefore recommended that the EPA disapprove Wyoming's February 6, 2014 prong 1 submittal for the 2008 ozone NAAQS.

*Response:* First, the EPA does not agree that because the receptor is projected to have an average design value of 75.5, that the EPA should label this receptor a nonattainment receptor. As explained in the 2016 AQM TSD, "In determining compliance with the NAAQS, ozone design values are truncated to integer values. For example, a design value of 75.9 ppb is truncated to 75 ppb which is attainment. In this manner, design values at or above 76.0 ppb are considered to be violations of the NAAQS."[33] This method is consistent with the method to compliance with the 2008 ozone NAAQS.[34] Therefore a design value of 75.5 is not considered a violation of the standard.

The EPA agrees that recent monitoring data at the Douglas County, Colorado monitor suggest that the site faces a risk of not attaining the NAAQS in 2017. However, that risk is uncertain as the future monitored 2017 design value is unknown at this time. In light of this uncertainty and the statute's silence on how nonattainment and maintenance should be identified under the good neighbor provision, the EPA has developed a reasonable approach to identify downwind nonattainment and maintenance receptors. When evaluating air quality modeling for purposes of interstate transport, the EPA has routinely identified nonattainment receptors as those with monitors that are both projected to be unable to attain in an appropriate future year and that are measuring nonattainment based on current data—*i.e.,* if the projected average design value in the future year does not exceed the standard, the EPA does not identify that receptor as a nonattainment receptor, but rather as a maintenance receptor. *See* 81 FR 74517 (CSAPR Update); 80 FR 75723 through 75724 (Proposed CSAPR Update); 76 FR 48227 through 48228 (CSAPR); 70 FR 25243–33 (CAIR); *see also North Carolina,* 531 F.3d at 913–914 (affirming as reasonable EPA's approach to defining nonattainment in CAIR). Given the EPA's modeling does not project that the Douglas County, Colorado receptor will be in nonattainment in 2017, even though it may currently be measuring nonattainment, it would be inconsistent with the EPA's past practice to identify that receptor as a nonattainment receptor.

Moreover, the EPA does not agree that it should identify a nonattainment receptor based on the formula proposed by the commenter because the data cited by the commenter does not conclusively prove that this monitor will be in nonattainment based on 2017 data.[35] First, the commenter notes that it would be possible for the 2017 design value to be sufficiently low such that the 3-year average is attaining the NAAQS. Second, the CAA provides that should 2017 data yield a fourth highest 8-hour concentration of 75.9 ppb or below, the state can petition EPA for additional time to demonstrate attainment of the NAAQS. *See* CAA section 181(a)(5).

That said, the EPA agrees that the receptor may have problems maintaining the standard in 2017 and has therefore identified this site as a maintenance receptor. As a result of this finding, the EPA and the State of Wyoming will need to evaluate what

[31] For details about the Douglas County, Colorado receptor, see the proposal for this final rulemaking at 81 FR 81715.

[32] See document EPA–R08–OAR–2016–0521–0002, "Final CSAPR Update_Ozone Design Values & Contributions_All Sites," in the docket for this action.

[33] See 2016 AQM TSD at pg. 11.

[34] See 40 CFR part 50, Appendix P—Interpretation of the Primary and Secondary National Ambient Air Quality Standards for Ozone; Section 2.1: "*Computing 8-hour averages.* Hourly average concentrations shall be reported in parts per million (ppm) to the third decimal place, with additional digits to the right of the third decimal place truncated."

[35] Although the commenter is correct that the EPA evaluated the weight of the evidence in the Arizona SIP submission, the EPA did not use the approach proposed by the commenter to average projections and monitored data in identifying potential receptors.

further emissions reductions may be required to ensure that the State's impact on downwind air quality is mitigated such that the State will not interfere with maintenance of the standard at that receptor.

The weight of evidence analysis in our action on the Arizona SIP determined the nature of the projected receptor's interstate transport problem as to the magnitude of ozone attributable to interstate transport from all upwind states collectively contributing to the air quality problem, not to the identification of that receptor. In the EPA action on the Arizona SIP, Arizona was the only state that contributed greater than the 1 percent threshold to the projected 2017 levels of the 2008 ozone NAAQS at the El Centro receptor. The EPA's assessment concluded that emissions reductions from Arizona are not necessary to address interstate transport because the total collective upwind state ozone contribution to these receptors is relatively low compared to the air quality problems typically addressed by the good neighbor provision. As discussed previously, the EPA similarly evaluated collective contribution to the Douglas County, Colorado monitor and finds the collective contribution of transported pollution to be substantial. Furthermore, in our action on the Arizona SIP we did not deviate from our past practice in identifying nonattainment and maintenance receptors in the way that commenter suggests we should do here.

The EPA does not agree that its projections are unreliable because the 2009 data are affected by the "Great Recession." In determining our 2009–2013 base period average design values, the data from 2009 are only weighted once, whereas, data in 2011 which has higher ozone is weighted 3 times in the calculations. In addition, our emissions data are projected from 2011 to 2017 and, thus, the effects of the recession on 2009 emissions have very little influence our 2017 projected emissions. In this respect, the air quality and emissions in 2009 have only a very limited influence on the projected design values. As described in EPA's air quality modeling guidance for ozone attainment demonstrations, the use of 5-year weighted average design values, as applied here, is intended to focus the base period air quality on the year of base case emissions, 2011 for this analysis, and to smooth out, to some extent, the effects of inter-annual variability in ozone concentrations.[36] Thus, EPA continues to believe that including ambient data from 2009 is appropriate for projecting future year ozone concentrations as part of the final rule.

*Comment:* Commenter Sierra Club asserted that the EPA's analysis of Wyoming's February 6, 2014 submittal ignores wintertime ozone levels. The commenter asserted that the EPA relies on the CSAPR Update analysis for its Wyoming ozone transport analysis, and that the CSAPR Update analysis throws out wintertime ozone data.[37] The commenter stated that it is inappropriate for the EPA to exclude the wintertime ozone data because the EPA has elsewhere acknowledged that wintertime ozone is an important issue in Wyoming and neighboring states. To support this point, the commenter cited the EPA's revision to the 2008 ozone NAAQS, which states that "Elevated levels of winter-time O3 have also been measured in some western states where precursor emissions can interact with sunlight off the snow cover under very shallow, stable boundary layer conditions." 80 FR 65416, October 26, 2015. The commenter also cited the ozone NAAQS revision to show that the ozone seasons for both Colorado and Utah are year-round, and that the EPA must therefore include an evaluation of wintertime ozone before it can approve any ozone transport provisions for Wyoming. 80 FR 65419 through 65420, October 26, 2015.

*Response:* As stated in the CSAPR Update Final, "Ozone levels are generally higher during the summer months." 81 FR 74513, October 26, 2016. The 2016 AQM TSD states that "High winter ozone concentrations that have been observed in certain parts of the Western U.S. are believed to result from the combination of strong wintertime inversions, large $NO_X$ and VOC emissions from nearby oil and gas operations, increased UV intensity due to reflection off of snow surfaces and potentially still uncharacterized sources of free radicals." 2016 AQM TSD at 14. Thus, high winter-time ozone episodes are due to a build-up of local emissions combined with local stagnation meteorological conditions rather than interstate transport. The EPA therefore disagrees that it must evaluate wintertime ozone before approving Wyoming's SIP as to the prong 1 requirements of section 110(a)(2)(D)(i)(I).

## III. Final Action

The EPA is approving CAA section 110(a)(2)(D)(i)(I) prongs 1, 2 and 4 for the 2008 Pb NAAQS, prong 1 for the 2008 ozone NAAQS, prongs 1 and 2 for the 2010 $NO_2$ NAAQS, and prong 4 for the 2010 $SO_2$ NAAQS, as shown in Table 2, below. The EPA is disapproving prong 4 for the 2006 $PM_{2.5}$, 2008 ozone, 2010 $NO_2$ and 2012 $PM_{2.5}$ NAAQS, and prong 2 for the 2008 ozone NAAQS, as shown in Table 3. Disapproval of prong 2 for the 2008 ozone NAAQS will establish a 2-year deadline, under CAA section 110(c), for the EPA to promulgate a FIP, unless the EPA approves a SIP that meets these requirements. As stated at proposal, the prong 4 disapprovals do not have additional practical consequences for the State or the EPA because the FIP already in place will satisfy the prong 4 requirements for these NAAQS. The EPA will work with Wyoming to provide assistance as necessary to help Wyoming develop an approvable SIP submittal and the EPA is committed to taking prompt action on a SIP submitted by the State. Disapproval does not start a mandatory sanctions clock for Wyoming pursuant to CAA section 179 because this action does not pertain to a part D plan for nonattainment areas required under CAA section 110(a)(2)(I) or a SIP call pursuant to CAA section 110(k)(5).

TABLE 2—LIST OF WYOMING INTERSTATE TRANSPORT PRONGS THAT THE EPA IS APPROVING

| Approval |
|---|
| *February 6, 2014 submittal*—2008 Ozone NAAQS: (D)(i)(I) prong 1. |
| *October 12, 2011 submittal*—2008 Pb NAAQS: (D)(i)(I) prongs 1 and 2, (D)(i)(II) prong 4. |
| *January 24, 2014 submittal*—2010 $NO_2$ NAAQS: (D)(i)(I) prongs 1 and 2. |
| *March 6, 2015 submittal*—2010 $SO_2$ NAAQS: (D)(i)(II) prong 4. |

TABLE 3—LIST OF WYOMING INTERSTATE TRANSPORT PRONGS THAT THE EPA IS DISAPPROVING

| Disapproval |
|---|
| *August 19, 2011 submittal*—2006 $PM_{2.5}$ NAAQS: (D)(i)(II) prong 4. |
| *February 6, 2014 submittal*—2008 Ozone NAAQS: (D)(i)(I) prong 2, (D)(i)(II) prong 4. |

[36] Modeling Guidance for Demonstrating Attainment of Air Quality Goals for Ozone, $PM_{2.5}$, and Regional Haze available in the docket and at: *http://www.epa.gov/ttn/scram/guidance/guide/Draft_O3-PM-RH_Modeling_Guidance-2014.pdf.*

[37] *Id.* The commenter specifically cited the following language from the document: "In addition, there are 7 sites in 3 counties in the West that were excluded from this file because the ambient design values at these sites were dominated by wintertime ozone episodes and not summer season conditions that are the focus of this transport assessment." *Citing* EPA–R08–OAR–2016–0521–0002 at "Readme" tab.

TABLE 3—LIST OF WYOMING INTERSTATE TRANSPORT PRONGS THAT THE EPA IS DISAPPROVING—Continued

| Disapproval |
|---|
| *January 24, 2014 submittal*—2010 $NO_2$ NAAQS: (D)(i)(II) prong 4. |
| *June 24, 2016 submittal*—2012 $PM_{2.5}$ NAAQS: (D)(i)(II) prong 4. |

## IV. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state actions, provided that they meet the criteria of the CAA. Accordingly, this action merely approves some state law provisions as meeting federal requirements and disapproves other state law because it does not meet federal requirements; this action does not impose additional requirements beyond those imposed by state law. For that reason, this action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act; and
- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, the SIP does not apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this action and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2).

Under section 307(b)(1) of the CAA, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by April 4, 2017. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. (See CAA section 307(b)(2).)

### List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Lead, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

**Authority:** 42 U.S.C. 7401 *et seq.*

Dated: January 17, 2017.

**Debra H. Thomas,**

*Acting Regional Administrator, Region 8.*

40 CFR part 52 is amended to read as follows:

## PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

■ 1. The authority citation for part 52 continues to read as follows:

**Authority:** 42 U.S.C. 7401 *et seq.*

### Subpart ZZ—Wyoming

■ 2. In § 52.2620, the table in paragraph (e) is amended by adding the entry "(27) XXVII" at the end of the table to read as follows:

**§ 52.2620 Identification of plan.**

* * * * *

(e) * * *

| Rule No. | Rule title | State effective date | EPA effective date | Final rule citation/ date | Comments |
|---|---|---|---|---|---|
| * | * * * | * | * | * | * |
| (27) XXVII ..... | Interstate transport SIP for Section 110(a)(2)(D)(i) prong 1–2008 Ozone NAAQS; prongs 1, 2 and 4–2008 Pb NAAQS; prong 1 and 2–2010 $NO_2$ NAAQS; prong 4–2010 $SO_2$ NAAQS. | 2/6/2014; 10/12/2011; 1/24/2014; 3/6/2015. | 3/6/2017 | [Insert **Federal Register** citation] 2/3/2017. | |

[FR Doc. 2017–02197 Filed 2–2–17; 8:45 am]
BILLING CODE 6560–50–P

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 52

**[EPA–R08–OAR–2016–0588; FRL–9959–18–Region 8]**

### Approval and Promulgation of State Implementation Plans; Interstate Transport for Utah

**AGENCY:** Environmental Protection Agency.

**ACTION:** Final rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is taking final action on a portion of a January 31, 2013 submission and a December 22, 2015 supplemental submission from the State of Utah that are intended to demonstrate that the Utah State Implementation Plan (SIP) meets certain interstate transport requirements of the Clean Air Act (Act or CAA) for the 2008 ozone National Ambient Air Quality Standards (NAAQS). The interstate transport requirements under the CAA consist of four elements: Significant contribution to nonattainment (prong 1) and interference with maintenance (prong 2) of the NAAQS in other states; and interference with measures required to be included in the plan for other states to prevent significant deterioration of air quality (prong 3) or to protect visibility (prong 4). Specifically, the EPA is approving interstate transport prong 1 for the 2008 ozone NAAQS.

**DATES:** This final rule is effective on March 6, 2017.

**ADDRESSES:** The EPA has established a docket for this action under Docket Identification Number EPA–R08–OAR–2016–0588. All documents in the docket are listed on the *http://www.regulations.gov* index. Although listed in the index, some information may not be publicly available, *e.g.*, Confidential Business Information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically through *http://www.regulations.gov* or in hard copy at the Air Program, Environmental Protection Agency (EPA), Region 8, 1595 Wynkoop Street, Denver, Colorado, 80202–1129. The EPA requests that you contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section to view the hard copy of the docket. You may view the hard copy of the docket Monday through Friday, 8:00 a.m. to 4:00 p.m., excluding federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Adam Clark, Air Program, U.S. Environmental Protection Agency, Region 8, Mail Code 8P–AR, 1595 Wynkoop Street, Denver, Colorado 80202–1129, (303) 312–7104, *clark.adam@epa.gov.*

### I. Background

On December 20, 2016, the EPA proposed to approve portions of Utah's January 31, 2013 submission and December 22, 2015 supplemental submission as meeting the prong 1 requirements of CAA section 110(a)(2)(D)(i) for the 2008 ozone NAAQS. 81 FR 92755, December 20, 2016. An explanation of the CAA requirements, a detailed analysis of the State's submittals, and the EPA's rationale for this proposed action were provided in the notice of proposed rulemaking, and will not be restated here. The public comment period for this proposed rule ended on January 10, 2017. The EPA received four comments on the proposal, which will be addressed in the "Response to Comments" section, below.

### II. Response to Comments

Comment: Commenter Sierra Club stated that the EPA should disapprove Utah's prong 1 submission for the 2008 ozone NAAQS. The commenter asserted that all three of the Denver area maintenance receptors to which Utah's projected contribution exceeded one percent of the NAAQS[1] should instead be nonattainment receptors, but are not because the CSAPR Update modeling under-predicts the receptors' 2017 ozone design values. The commenter based this assertion on a weight of evidence approach using ambient air monitoring data collected at these receptors. The commenter stated that such a weight of evidence approach was appropriate to determine this receptor should be nonattainment, and noted that the EPA had used a weight of evidence approach in its action on Arizona's transport SIP. The CSAPR Update modeling projected that the Douglas County, Colorado receptor (monitor site ID 80350004) would have a 2017 average design value of 75.5 ppb, with a maximum design value of 77.6 ppb, and that one Jefferson County, Colorado receptor (monitor site ID 80590006) would have a 2017 average design value of 75.7 ppb, with a maximum design value of 78.2 ppb.[2] The commenter first asserted that both average design values should indicate nonattainment rather than maintenance, referring to the EPA's basis for the maintenance categorizations as "bad math." The commenter then stated that all three maintenance receptors will indeed be nonattainment for the 2015–2017 period. The commenter included the 4th highest daily maximum values, on which the 2008 ozone NAAQS is

[1] For details about these receptors, see EPA's final rulemaking disapproving prong 2 of Utah's 2008 ozone submittals, at 81 FR 71992, October 19, 2016.

[2] See document EPA–R08–OAR–2016–0588–0002, "Final CSAPR Update_Ozone Design Values & Contributions_All Sites," in the docket for this action.

# EXHIBIT 2

Department of Environmental Quality

*To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.*

DEQ

Matthew H. Mead, Governor

Todd Parfitt, Director

April 4, 2017

Scott Pruitt
Administrator
U.S. Environmental Protection Agency
USEPA Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N. W.
Washington, DC 20460

**Submitted via overnight mail and electronic mail**

Re: Petition for Reconsideration of Final Rule on the Approval and Disapproval and Promulgation of Air Quality Implementation Plans; Interstate Transport for Wyoming; Docket No. EPA-R08-OAR-2016-0521

Dear Administrator Pruitt:

The Wyoming Department of Environmental Quality, Air Quality Division (WDEQ) hereby petitions the United States Environmental Protection Agency (EPA) to reconsider the Final Rule on the Approval and Disapproval and Promulgation of Air Quality Implementation Plans; Interstate Transport for Wyoming. 82 Fed. Reg. 9142 (Feb. 3, 2017) (Final Rule). Pursuant to Clean Air Act (CAA) Section 307(d)(7)(B), WDEQ requests that EPA convene a proceeding for reconsideration of the Disapproval. That would enable the EPA to hear testimony and receive new information from WDEQ and other parties who submitted comments to the above-referenced docket.

While WDEQ is hopeful that the EPA will grant this request, in consideration of the importance of the Disapproval to the State of Wyoming, WDEQ has contemporaneously filed a petition for review of the Disapproval in the United States Court of Appeals for the Tenth Circuit. Should EPA wish to engage in settlement negotiations, WDEQ is willing to jointly move the Tenth Circuit to stay that litigation for the duration of settlement discussions.

## 1. Basis for Petition and Procedural Background

In the above-referenced Disapproval, the EPA disapproved several portions of State Implementation Plan (State Plan or SIP) revisions submitted by the State of Wyoming to satisfy the State's CAA 110(a)(2)(D)(i) interstate transport requirements. As part of the requirements, State Plans must contain adequate provisions preventing any emissions activity in one state from emitting pollutants in amounts that will contribute significantly to nonattainment, or interfere with maintenance, of the National Ambient Air Quality Standards (NAAQS) in another state. Wyoming's SIP revisions included an infrastructure SIP for the 2008 ozone NAAQS, submitted

on February 6, 2014. The EPA did not propose any action on Wyoming's 2008 ozone NAAQS State Plan until November 18, 2016, at which point it proposed a number of actions, including the disapproval of SIP prong 2 of CAA subsection 110(a)(2)(D)(i)(I), which addresses interference with maintenance of the NAAQS in another state.

EPA stated many times that it would not use the Cross-State Air Pollution Rule (CSAPR) in the West as it has done in the Final Rule. In the interim period between submission and disapproval, EPA issued a memorandum intended to provide guidance to states when addressing the CAA's interstate transport "Good Neighbor" provision in their State Plans. In the memo, EPA stated, "CSAPR and its predecessor transport rules, the $NO_x$ SIP Call and CAIR, were designed to address the collective contributions from the 37 states in the Eastern U.S. and were not formally evaluated for applicability to the 11 states in the Western U.S."[1] After EPA issued the guidance, but before taking action on Wyoming's plans, EPA issued a notice of data availability (NODA) to support the upcoming CSAPR update for the 2008 ozone NAAQS. The NODA for the CSAPR update was published for comment on August 4, 2015, well after the Division submitted the 2008 Ozone Infrastructure SIP. Wyoming commented on the NODA[2] with the understanding that the rule applied only to eastern states and that Wyoming would provide additional comments when the EPA proposed additional SIP requirements for western states.[3] When the EPA proposed the CSAPR update on December 3, 2015, the WDEQ commented to that effect once again, because the proposed and final rules both stated that, "the EPA is not addressing interstate emission transport in this action for the 11 western contiguous United States." 81 Fed. Reg. 74523.

WDEQ submitted Wyoming's 2008 ozone NAAQS SIP on February 6, 2014 and EPA had until August 5, 2015 to act on the submission. Throughout the entire process, WDEQ received no indication or communication from EPA's Region 8 office that any deficiencies were present in any of the interstate transport portions of Wyoming's State Plan submissions, and it was not until November 18, 2016, that WDEQ received any official communication that EPA planned to disapprove prong 2 of Wyoming's 2008 ozone SIP. WDEQ requested, and was subsequently denied, an extension so that it could provide EPA with additional information.[4] WDEQ provided what information it could in a comment letter to the docket by the December 19, 2016, comment period deadline. In this petition, the Division provides new technical information to support its original SIP submission. That new information is central to this rulemaking, and because the EPA did not consider this information when the agency first disapproved Wyoming's SIP submission, the EPA should now convene a proceeding to formally receive and consider this information.

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[1] *See* Information on the Interstate Transport "Good Neighbor" Provision for the 2008 Ozone National Ambient Air Quality Standards (NAAQS) under Clean Air Act (CAA) Section 110(a)(2)(D)(i ). January 22, 2015, p. 4

[2] *See* Docket No. EPA–HQ–OAR–2015–0500

[3] WDEQ was also not able to comment at this time on the contribution threshold. The NODA stated, "In CSAPR, the EPA used a contribution screening threshold of 1 percent of the NAAQS to identify upwind states in the eastern U.S. that may significantly contribute to downwind nonattainment and/or maintenance problems and which warrant further analysis. The EPA will take comment on the appropriate threshold to be applied for purposes of the 2008 ozone NAAQS in the upcoming rulemaking proposal to address interstate ozone transport for that standard. The EPA is not proposing or taking comment on this threshold as part of this NODA." 80 Fed. Reg. 46277.

[4] *See* Docket ID No. EPA-R08-OAR-2016-0521

## 2. Overview of New Information

In the Final Rule, EPA disapproved prong 2 of Wyoming's plan for the 2008 ozone NAAQS because EPA "linked" Wyoming emissions to projected high ozone levels at a Douglas County, Colorado receptor. EPA applied the "one percent" threshold used in the CSAPR update, which was determined using $CAM_x$ modeling. The model used "Ozone Source Apportionment Technology" (OSAT), "Particulate Source Apportionment Technology" (PSAT) and the "Anthropogenic Precursor Culpability Analysis" (APCA), to determine the contributions from upwind states to predicted ozone levels. The EPA relies on the ability of OSAT/APCA to "tag" ozone precursor emissions from Wyoming and to distinguish precisely how much of the predicted ozone at downwind receptors is attributable to Wyoming.

In recent conversations with the EPA staff that conducted the CSAPR transport modeling, WDEQ inquired about the reliability of the predicted contributions, and if the predicted contributions could be verified. EPA confirmed that the certainty of the source apportionment tools cannot be tested, and that back-trajectories are used to determine if the modeled contributions from an upwind state are plausible. This is very concerning for Wyoming, because while transport patterns can reveal if wind flows would even allow precursor emissions from a particular area to reach a given receptor, it does not prove that OSAT/APCA can predict ozone contributions with any degree of accuracy. Moreover, one of the source apportionment tools in $CAM_x$, PSAT, was recently found to produce inconsistent results within the model, which called into question previous modeling results that were used for $PM_{2.5}$ and regional haze SIPs, as well as the CSAPR. According to the model developer, this inconsistency with PSAT has been corrected within the model, but it demonstrates the unproven nature of the source apportionment tools. Wyoming has serious concerns that EPA is using an inaccurate assessment tool to predict very small levels of ozone that in turn "link" Wyoming emissions to receptors in other states.

Knowing that the primary source of certainty testing for the source apportionment tools is through back-trajectory analysis, Wyoming conducted its own analysis of back-trajectories for the 10 days with the highest monitored ozone values at the Douglas County, Colorado monitor (referred to in the disapproval as a receptor) to which Wyoming emissions were "linked" in the base 2011 CSAPR modeling. Wyoming's objective was to compare the transport patterns on those 10 days to the model-predicted "contributions" from Wyoming to determine if the model results were reasonable. Only one of the 10 back-trajectories showed that flows for the previous 24 hours originated from the direction of Wyoming (see Attachment A). For the other nine back-trajectories, flows originated from southern Colorado, western Colorado/eastern Utah, states southwest of Colorado, and the Denver Front Range. WDEQ received additional data from EPA's Region 8 office on March 27, 2017 and conducted back-trajectory analyses on the four additional days for which it did not already conduct analyses (See Attachment A Supplements 1 and 2). In all, WDEQ's back-trajectory analyses show flows from only three of the eight modeled days (6/22, 7/5, and 8/10) and only one of the highest monitored days in 2011 (6/22).

WDEQ recently became aware of source apportionment modeling conducted by Ramboll Environ and Alpine Geophysics on behalf of the Denver Regional Air Quality Council (RAQC) and the Colorado Department of Public Health and Environment (CDPHE) Air Pollution Control

Division (APCD) (Attachment B).[5] The modeling was conducted using the same $CAM_x$ software used in EPA's CSAPR modeling with data from the Intermountain West Data Warehouse. The analysis showed that for the same site, on the same day, total 2017 MDA8 $O_3$ (highest daily maximum 8 hour average for ozone) was different between the types of analyses (Local Source Analysis versus Transport Analysis) likely due to the differences in grid resolution. This discrepancy alone is reason enough for EPA to reconsider Wyoming's 2008 ozone SIP submission.

Additional information has become available since the CSAPR Update and the disapproval of Wyoming's ozone SIP for which the $CAM_x$ modeling does not account. The peer-reviewed journal *Atmospheric Chemistry and Physics* published an article dated March 1, 2017, which observed that ozone concentrations at some sites in the western U.S. are increasing despite stringent emissions controls.[6] The article concludes that an increase of Asian anthropogenic emissions has increased by 1–2 ppb $yr^{-1}$ since 1990 and is a major driver of both spring and summer background ozone in the western U.S., contributing up to 65% of springtime background ozone. The article specifically references the Denver metropolitan area and notes that "the 4th highest MDA8 $O_3$ in the Denver metropolitan area shows little change over the past decades, despite significant reductions in $NO_x$…and CO emissions."[7]

EPA has also taken action on a petition, dated December 9, 2013, since its disapproval of prong 2 of Wyoming's 2008 ozone SIP. In the action, EPA stated that, "[o]zone levels across the nation are expected to further decline over the next several years due to emissions controls already in place. The EPA's emissions projections in support of the 2015 ozone NAAQS modeling show declining emissions of $NO_X$ and VOCs between 2017 and 2025." 82 Fed. Reg. 6520. In light of this information, it seems premature for the EPA to disapprove prong 2 of Wyoming's State Plan for ozone.

WDEQ also submitted numerous exceptional event packages to EPA between 2011 and 2014, and EPA responded in a letter received by WDEQ on April 28, 2016 that:

> A preliminary review of the demonstrations submitted indicates that the flagged PM and ozone data may have been influenced by exceptional events; however, at this time the EPA will not take action on WDEQ's request for concurrence on the referenced data flags. The data are not anticipated to be involved in any pending regulatory decision by the EPA, therefore, the EPA is not making a concurrence decision on the demonstrations submitted. *If at some point in the future the flagged data would be included in an attainment demonstration or involved in other regulatory decisions, the EPA would then undertake a full review of the submitted demonstrations to allow a concurrence decision at that time*." (emphasis added).

Yet all of those flagged data were used in the EPA's regulatory decision to disapprove Wyoming's ozone transport State Plan submission. 82 Fed. Reg. 9151. WDEQ asks that EPA

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[5] Denver Metro/North Front Range 2017 Ozone Source Apportionment Modeling. Retrieved from http://vibe.cira.colostate.edu/wiki/wiki/9132/. February 21, 2017 and March 16, 2017.
[6] M. Lin et al. "US surface ozone trends and extremes from 1980 to 2014" *Atmospheric Chemistry and Physics*. March 1, 2017. p. 2964
[7] Ibid. p. 2960

concur on Wyoming's decisions to flag the data as influenced by exceptional events, remove the flagged data, and then use the new data set to reconsider the Final Rule. WDEQ also requests that EPA review Colorado receptor data for any possible concurrent exceptional events, such as wildfires, on certain dates and WDEQ would also like an opportunity to review that data. Even though a state chooses not to submit an exceptional event package it does not mean data was not impacted by an exceptional event or events. Any day impacted by an exceptional event should be flagged as such whether or not that event was included in an official submission.

### 3. Docket Comments Supported Allowing Wyoming to Submit More Information

WDEQ's request for additional time to submit more information was not unreasonable. Every other comment to the docket supporting Wyoming's underlying State Plan submission requested that the EPA grant WDEQ additional time to submit additional information. (See Attachment C). The EPA chose not to give WDEQ more time based on a then-unsigned consent decree with the Sierra Club. That decision flies in the face of cooperative federalism because, in essence, the EPA determined that a citizen group's convenience during litigation was more important than a sovereign state's right to fully participate in its own State Plan development process.

I appreciate the time that you have taken to consider WDEQ's request. Although WDEQ is hopeful that the EPA will convene a proceeding for reconsideration, WDEQ will also be filing a petition for review in the 10th Circuit Court of Appeals today. Please feel free to contact me with any questions at (307) 777-3746. Please direct questions that are legal in nature to my counsel at the Wyoming Attorney General's Office, Elizabeth Morrisseau, at (307) 777-6199.

Sincerely,

Nancy E. Vehr
Air Quality Division Administrator

CC: Todd Parfitt, Wyoming Department of Environmental Quality, Director
Colin McKee, Wyoming Governor's Office, Policy Advisor
Deb Thomas, EPA Region 8, Acting Administrator
Carl Daly, EPA Region 8, Air Program Director

# Attachment A

## HYSPLIT Analyses of Parcel Trajectory for High Ozone Days in 2011 at the Douglas County, CO Monitoring Station

Wyoming Department of Environmental Quality
Air Quality Division
March 7, 2017

### I. Introduction

On February 3, 2017, the Environmental Protection Agency (EPA) published a final rule, "Approval and Disapproval of Air Quality Implementation Plans; Interstate Transport for Wyoming," in the Federal Register (FR Vol. 82, No. 22). In this rule, among other actions, the EPA disapproved the portion of the State of Wyoming's State Implementation Plan (SIP) addressing prong 2 of the interstate transport requirements for the 2008 ozone National Ambient Air Quality Standards (NAAQS). This disapproval hinged on a finding in an EPA modeled ozone transport assessment which found that Wyoming is projected to contribute 1.18 ppb of ozone to a maintenance receptor in the Denver, Colorado area in 2017.

This analysis serves as a supplement to the State of Wyoming's SIP submittal, providing additional evidence to support Wyoming's original claim that Wyoming is not expected to significantly contribute to Colorado's attainment of the 2008 NAAQS. The analysis includes additional information to support Wyoming's stance, including HYSPLIT and smoke analyses, as well as referencing modeling results which contradict the EPA's findings.

The maintenance monitor identified by the EPA as being influenced by emissions from Wyoming in 2017 is identified in Table 1, below.

| | |
|---|---|
| **Site Name** | Douglas County |
| **AQS Site ID** | 08-035-0004 |
| **Monitor Type** | SLAMS |
| **PQAO** | CDPHE |
| **Latitude** | 39.534488 |
| **Longitude** | -105.070358 |
| **Attainment Status** | Nonattainment |

**Table 1**. Site Details

The EPA's modeling analysis projected the maintenance status of monitors based on the 10 days with the highest maximum 8-hour average ozone values in the base year of 2011. The top 10 days for the Douglas County monitor and the associated maximum 8-hour average ozone value are identified in Table 2, below.

| Date | Starting Hour | Max 8-Hour Ozone Value (ppm) |
|---|---|---|
| June 24, 2011 | 12:00 | 0.099 |
| June 7, 2011 | 10:00 | 0.084* |
| August 13, 2011 | 12:00 | 0.084 |
| August 12, 2011 | 10:00 | 0.082 |
| August 20, 2011 | 11:00 | 0.081 |
| August 27, 2011 | 10:00 | 0.08 |
| July 18, 2011 | 13:00 | 0.079 |
| July 30, 2011 | 10:00 | 0.078 |
| June 22, 2011 | 11:00 | 0.076 |
| July 9, 2011 | 09:00 | 0.075 |

**Table 2**. Top 10 2011 Max 8-hr Ozone Days
*This value was flagged in AQS by the agency.

In analyzing these days it was noted that the June 7, 2011 value was identified as being associated with an exceptional event by the monitoring agency, the Colorado Department of Public Health and Environment (CDPHE). The comment provided in AQS about the June 7, 2011 event (from the hours of 07:00-21:00) is as follows:

*"The passage of a strong low pressure system created a fold in the tropopause. Associated stratospheric air in the troposphere and deep mixing resulted in stratospheric ozone being pulled down to ground level along the Colorado Front Range and mountain regions. The affected hourly concentrations are those flagged as "ro" in the AQS database. This meteorological Condition is not controllable."*

## II. HYSPLIT and Smoke Impact Analysis

HYSPLIT (Hybrid Single Particle Lagrangian Integrated Trajectory) Model Analyses generate wind trajectories up to forty-eight (48) hours prior to (backwards trajectory) or after (forwards trajectory) a chosen start date of interest. A backwards trajectory is a valuable indicator of what could affect a stationary location such as a city or monitoring station. A forwards trajectory is beneficial to view possible dispersion from an emission source.

In order to assess the potential impacts of Wyoming emissions on the Douglas County monitor, backward trajectories were run for each of the 10 highest ozone days in 2011. Trajectory data in this analysis were sourced from the National Oceanic and Atmospheric Administration's (NOAA) Air Resource Laboratory (ARL) website, here: http://www.arl.noaa.gov/HYSPLIT_info.php[1]. The National Centers for Environmental Protection's (NCEP) Global Data Assimilation System (GDAS) meteorological data set

[1] Stein, A.F., Draxler, R.R, Rolph, G.D., Stunder, B.J.B., Cohen, M.D., and Ngan, F., (2015). NOAA's HYSPLIT atmospheric transport and dispersion modeling system, Bull. Amer. Meteor. Soc., **96**, 2059-2077, http://dx.doi.org/10.1175/BAMS-D-14-00110.1

using a 0.5 degree resolution was used for these analyses. The model vertical velocity option was selected for vertical motion. These modeled trajectories are displayed in Figures 1-10, below.

Fire and smoke impacts were also assessed for the 10 highest ozone days in 2011. Fire and smoke data were obtained from NOAA's ARL website, here: http://www.ready.noaa.gov/smoke_verifyhms.php[2]. Where smoke impacts were present in the map domain on a given day, those layers were included in Figures 1-10. Fire and smoke data displayed are for the high ozone day, rather than the day before.

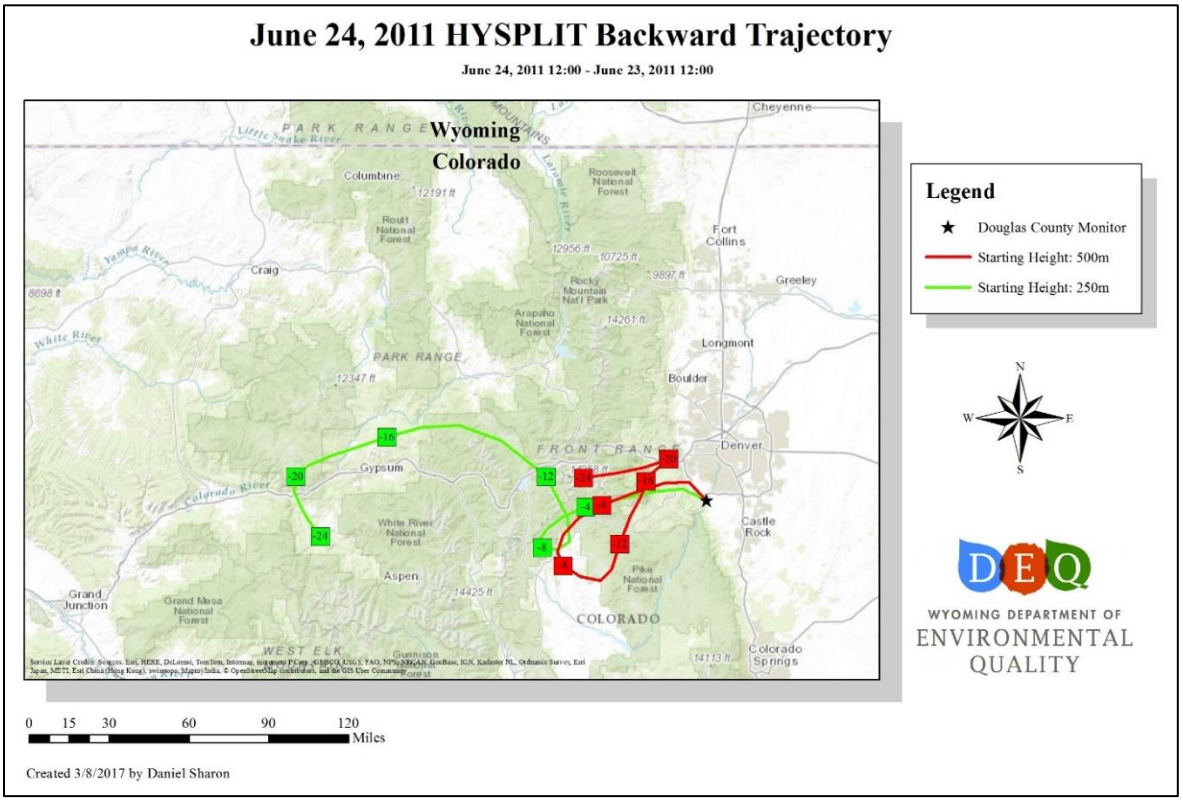


**Figure 1**. HYSPLIT Run for June 24, 2011

[2] NOAA. 2017. Meteorological archive data spanning June 2011 to August 2011. Downloaded from ARL website, http://www.arl.noaa.gov/index.php. Accessed March 2017.

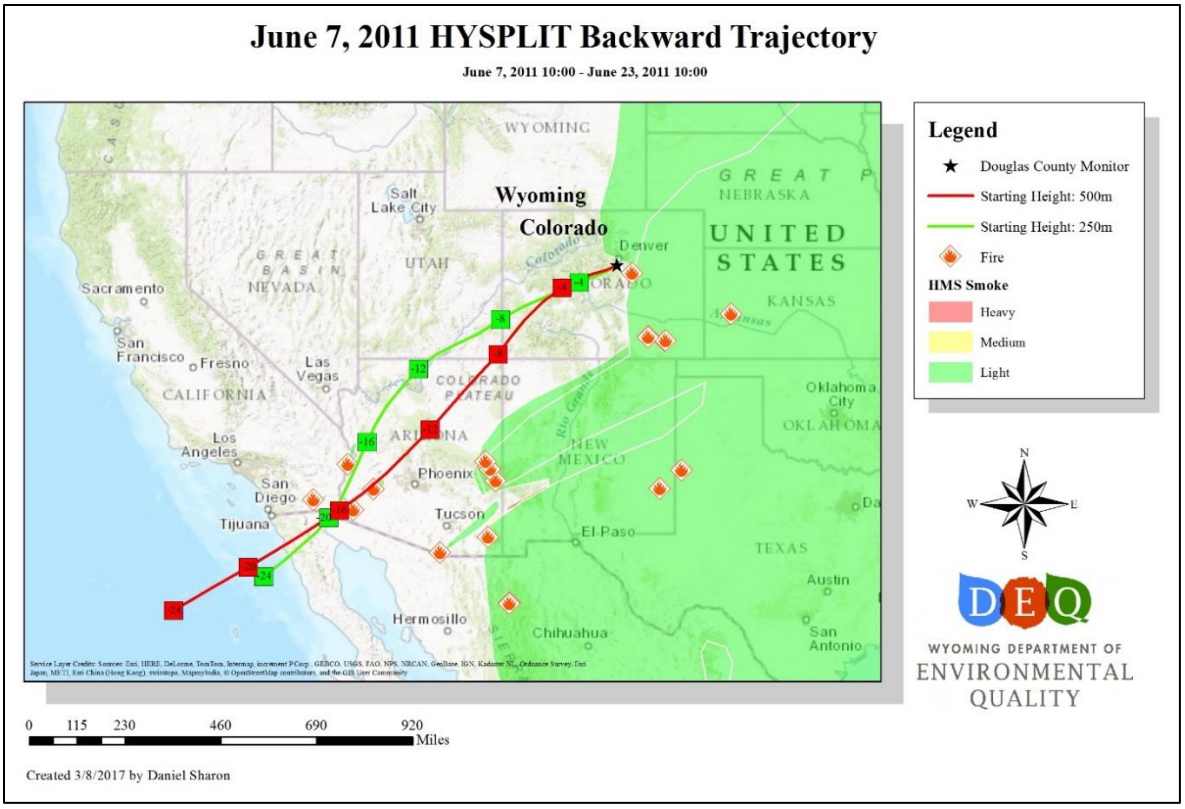


**Figure 2**. HYSPLIT Run for June 7, 2011

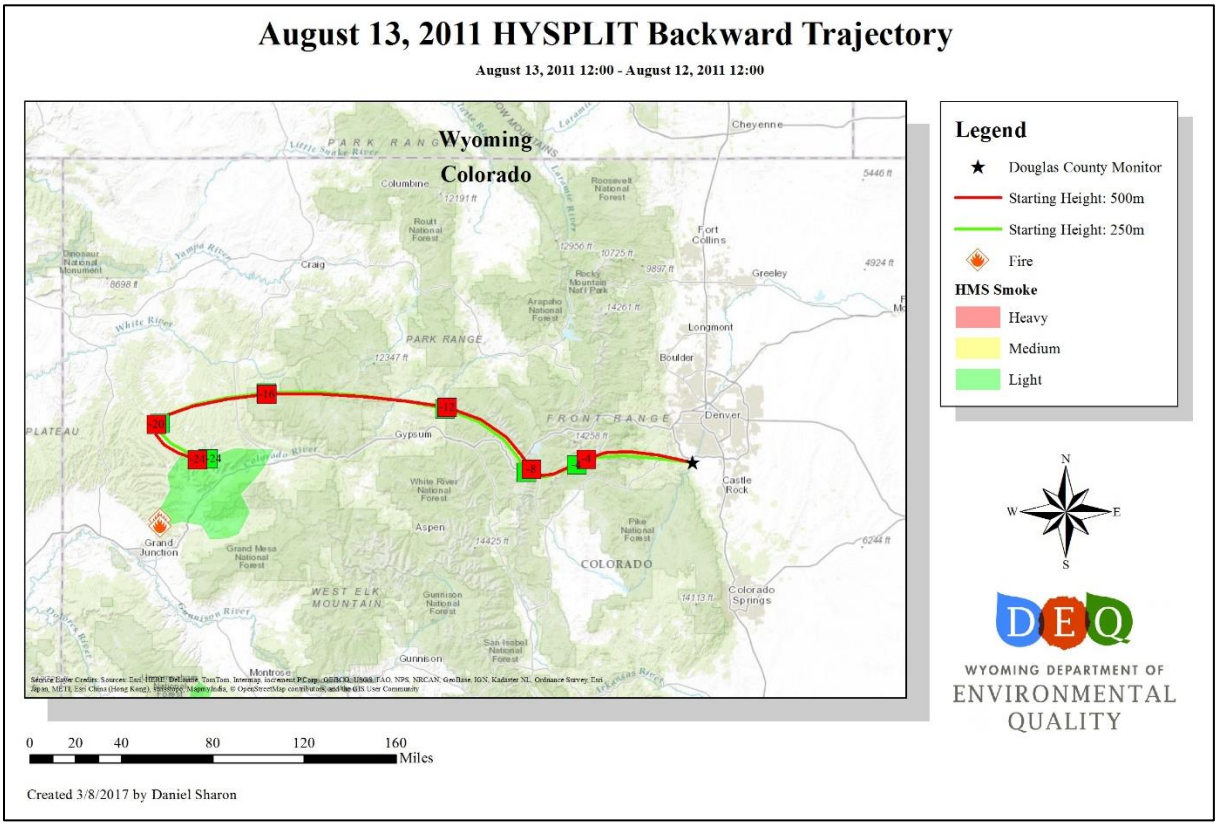


**Figure 3**. HYSPLIT Run for August 13, 2011

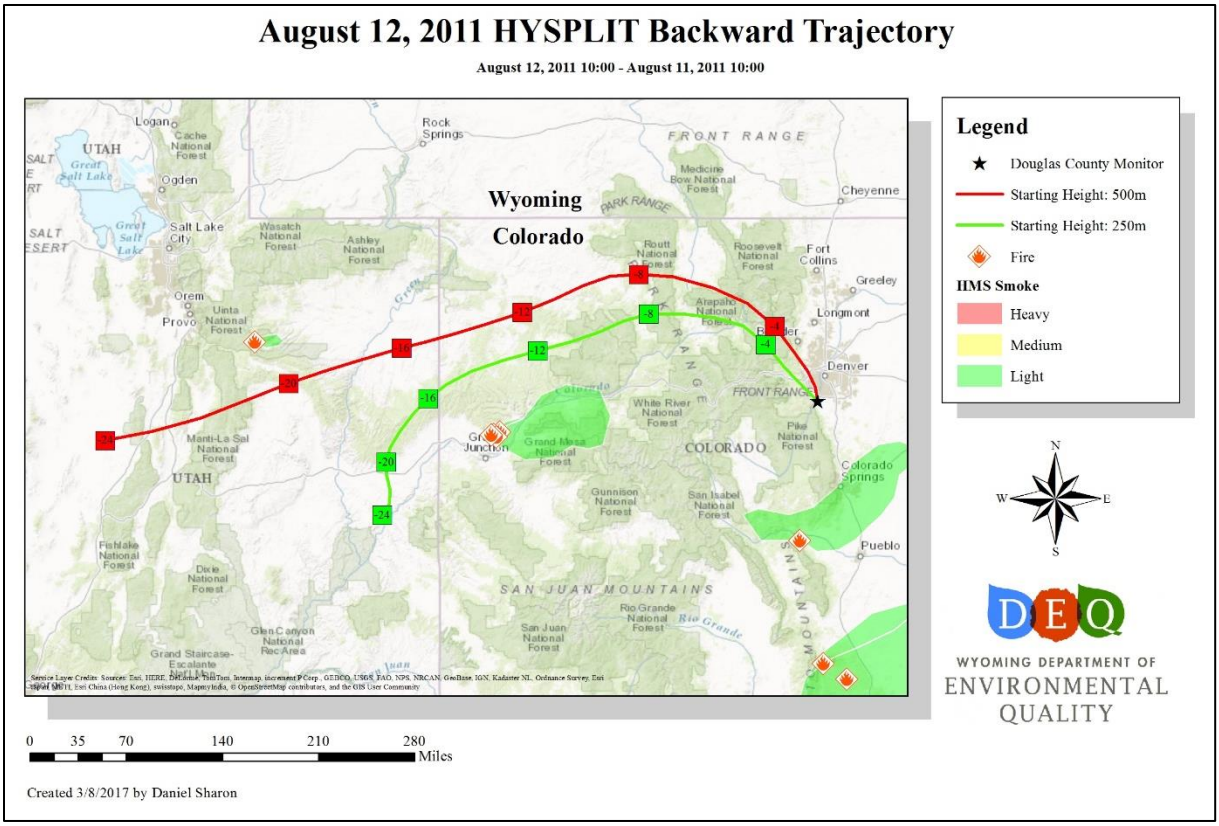


**Figure 4**. HYSPLIT Run for August 12, 2011

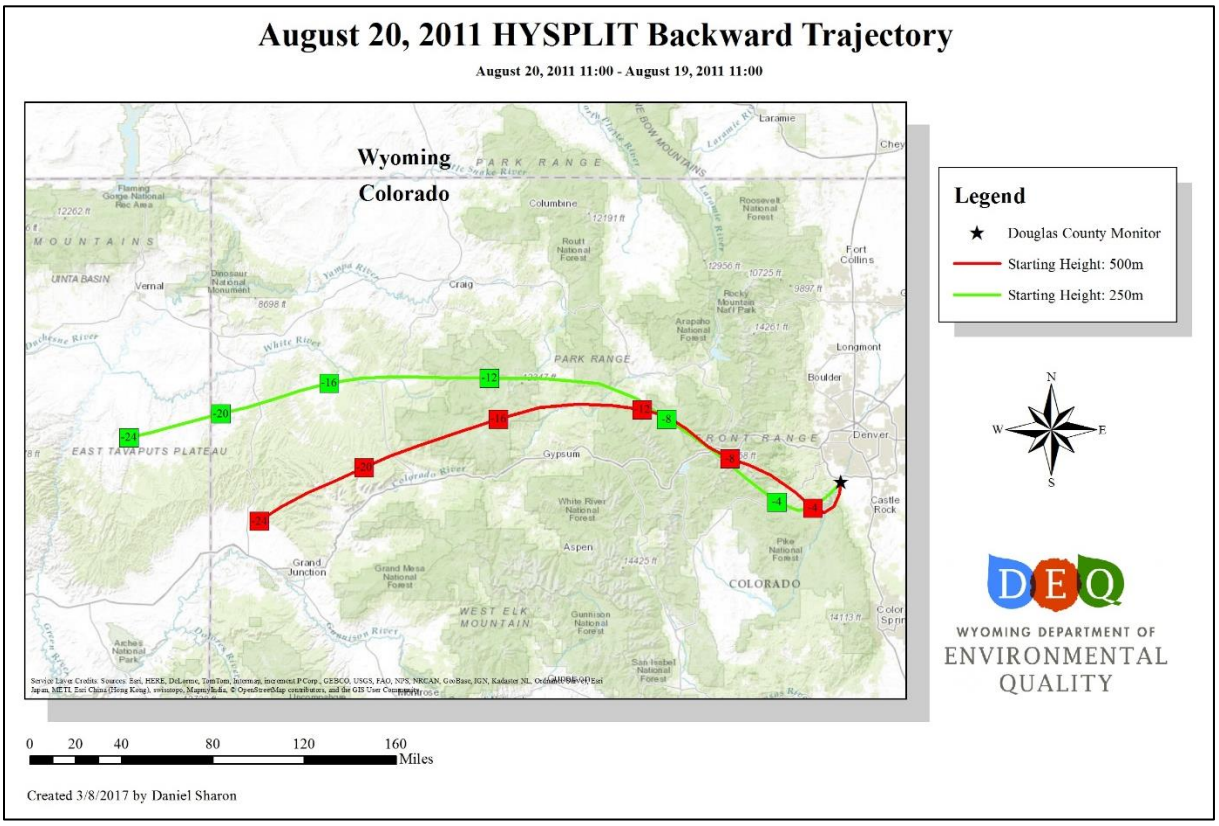


**Figure 5**. HYSPLIT Run for August 20, 2011

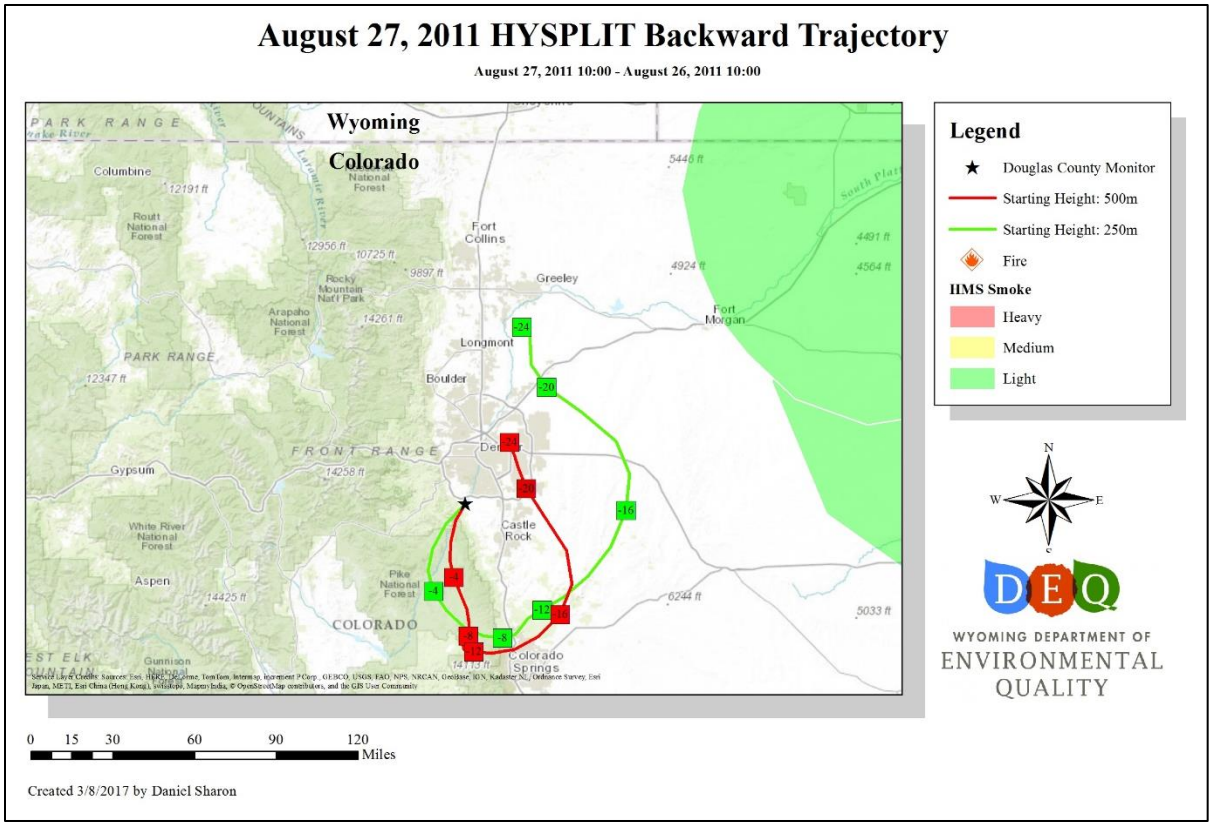


**Figure 6**. HYSPLIT Run for August 27, 2011

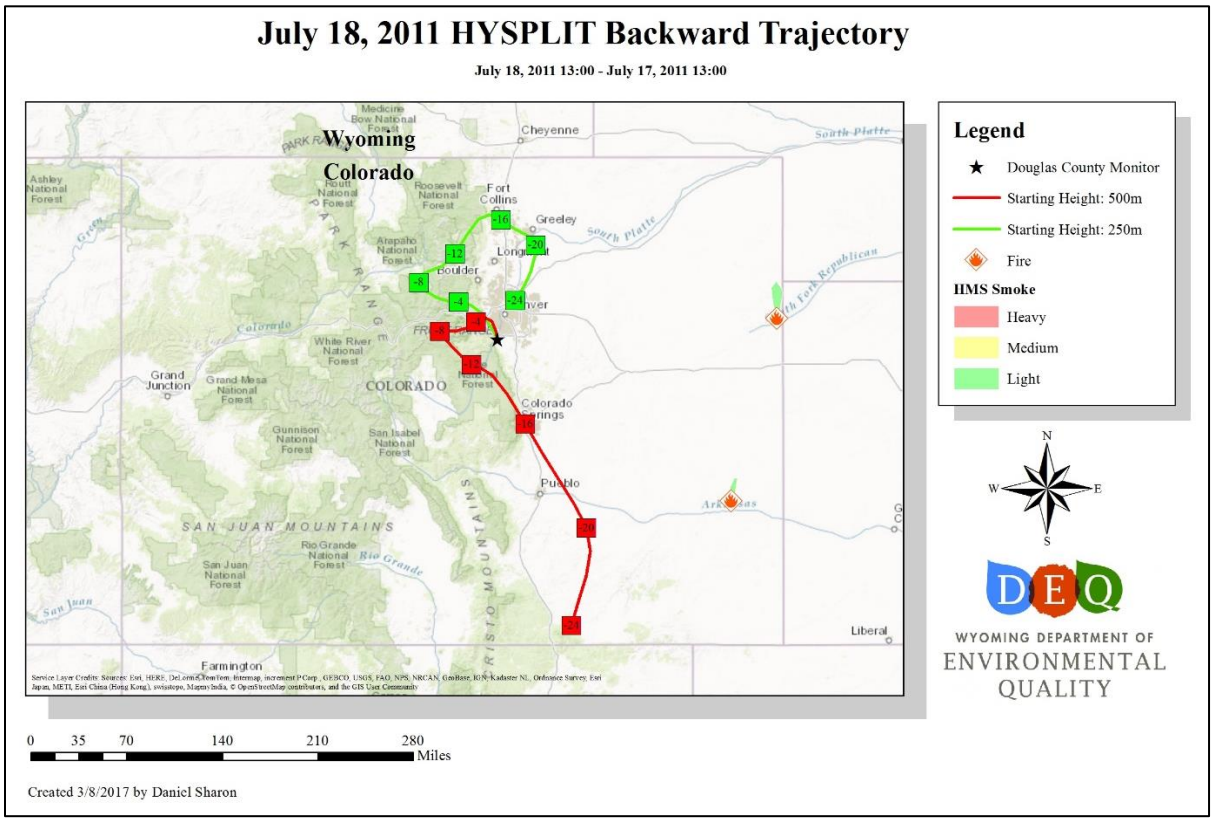


**Figure 7**. HYSPLIT Run for July 18, 2011

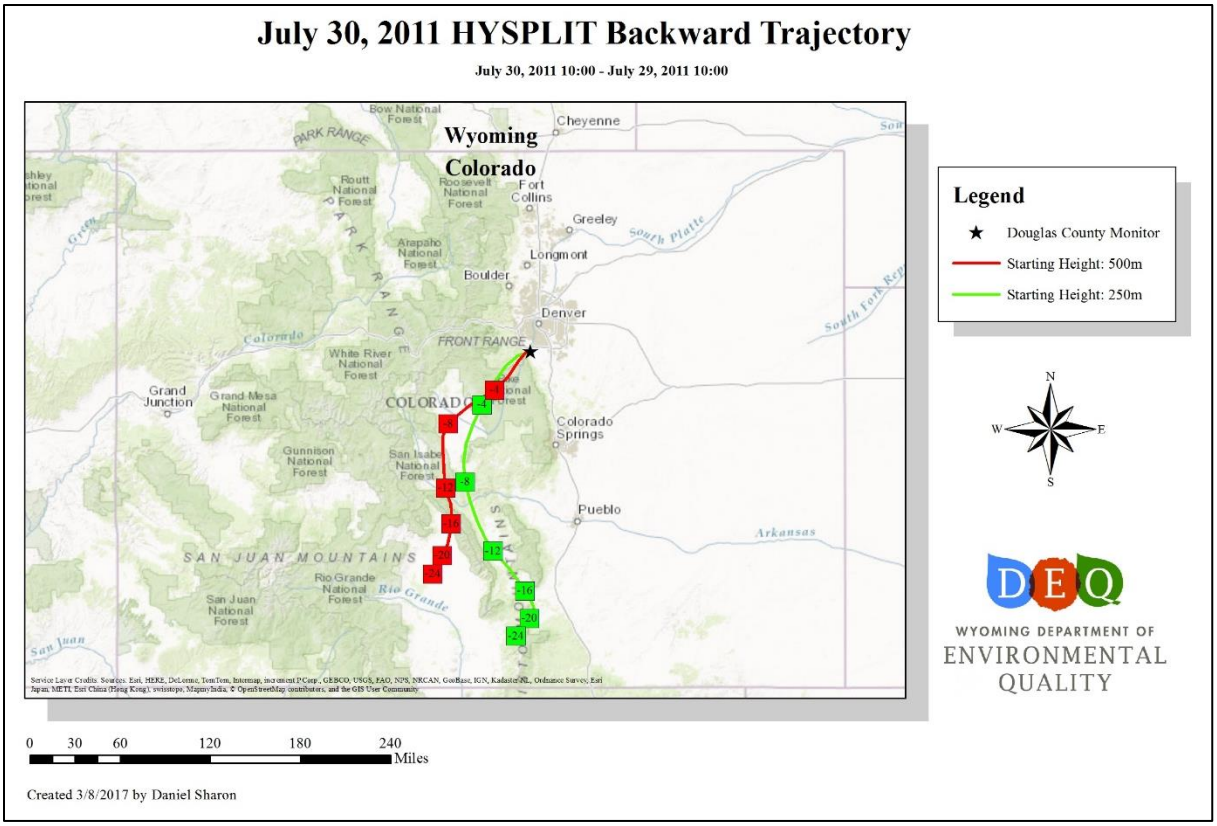


**Figure 8**. HYSPLIT Run for July 30, 2011

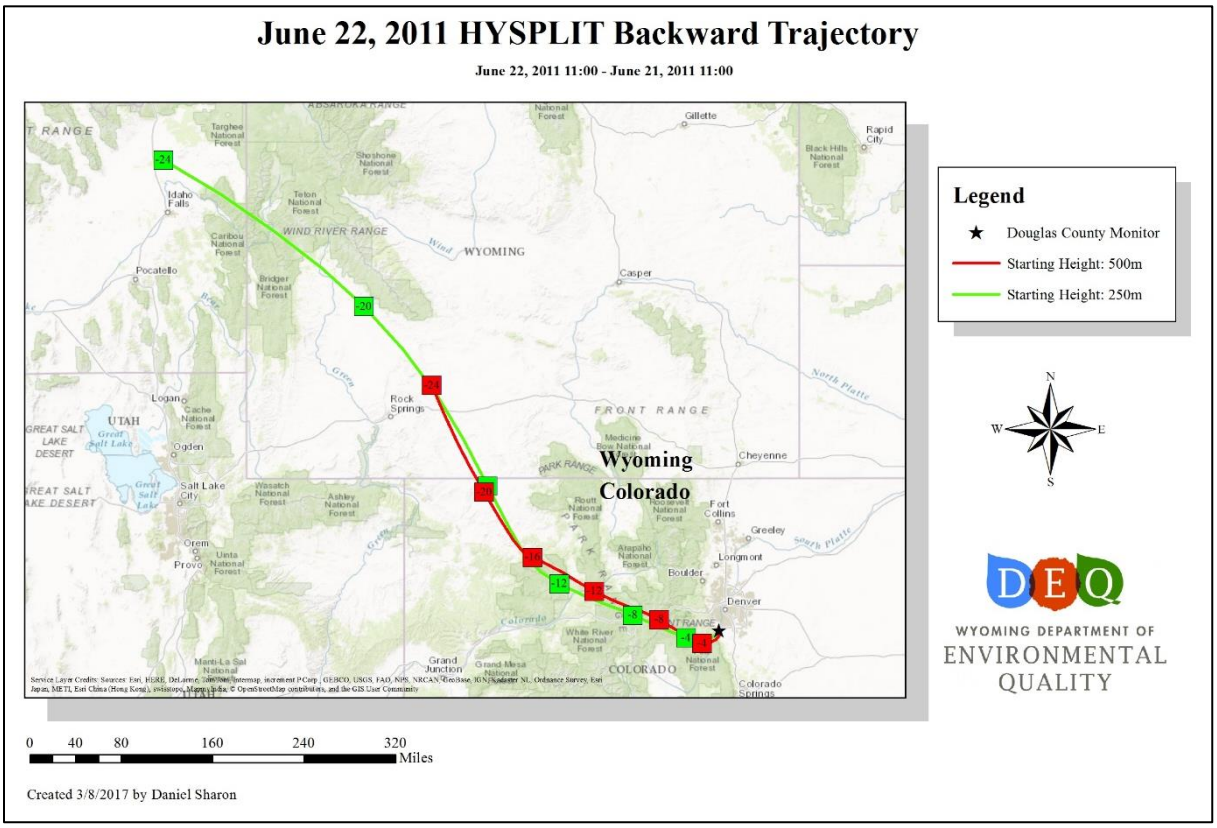


**Figure 9**. HYSPLIT Run for June 22, 2011

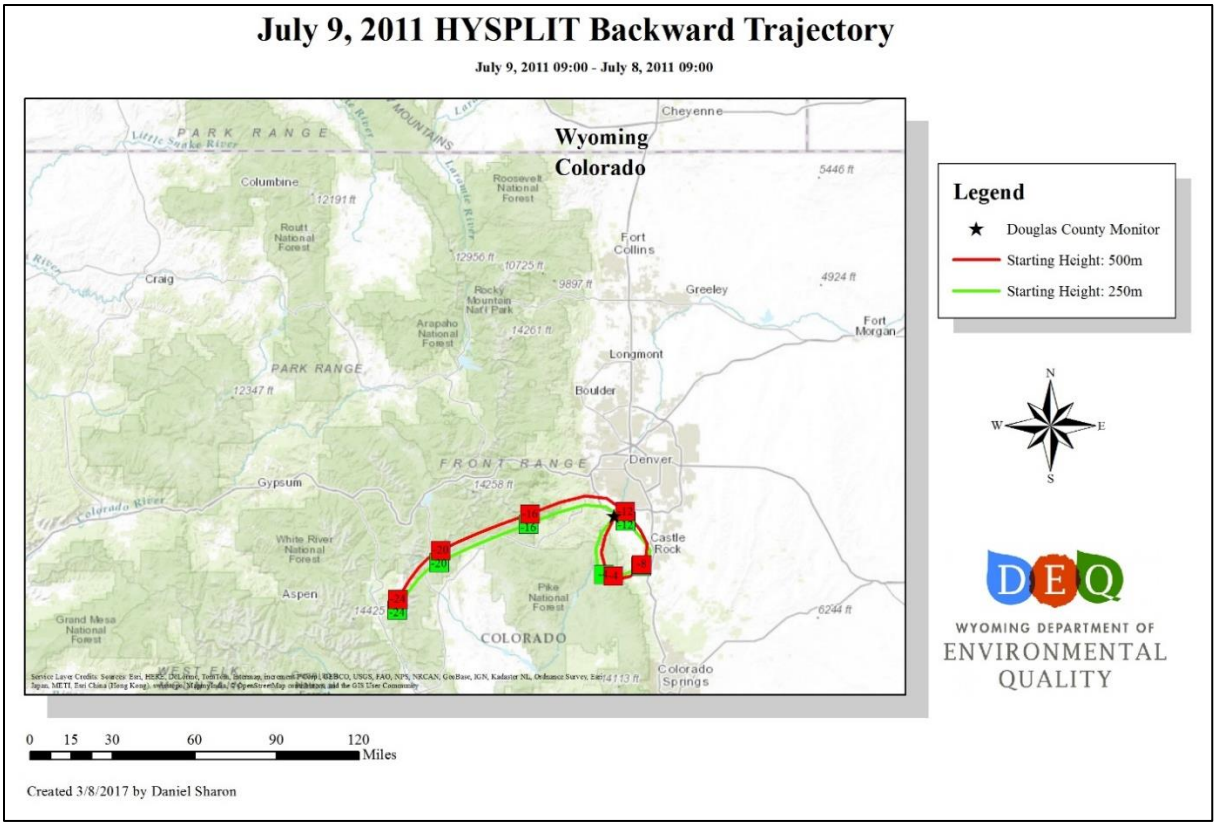


**Figure 10**. HYSPLIT Run for July 9, 2011

# Attachment A Supplement 1

## Supplement to HYSPLIT Analysis of Parcel Trajectory for High Ozone Days in 2011 at the Douglas County, CO Monitoring Station

Wyoming Department of Environmental Quality
Air Quality Division
March 30, 2017

In addition to the HYSPLIT analyses performed to characterize parcel movement on monitored high ozone days in 2011 at the Douglas County, Colorado monitor, the Air Quality Division (AQD) performed additional HYSPLIT runs for the modeled high days that were used in the Environmental Protection Agency's (EPA) determination of Wyoming's contributions in 2017. Four (4) of the days included in the AQD's March 7, 2017 analysis were among the eight (8) days used by the EPA to calculate ozone contribution from Wyoming to the Douglas County receptor. These four days are August 20, August 13, August 12, and June 22.

The additional four (4) days included in the EPA calculations are July 4, July 5, June 9, and August 10. HYSPLIT analyses for these days in 2011 are presented in Figures 1-4, below. As with the AQD's March 7, 2017 analysis, trajectory data were sourced from the National Oceanic and Atmospheric Administration's (NOAA) Air Resource Laboratory (ARL) website, here: http://www.arl.noaa.gov/HYSPLIT_info.php[1]. The National Centers for Environmental Protection's (NCEP) Global Data Assimilation System (GDAS) meteorological data set using a 0.5 degree resolution was used for these analyses. The model vertical velocity option was selected for vertical motion.

Fire and smoke impacts were also assessed for the additional four modeled high ozone days. Fire and smoke data were obtained from NOAA's ARL website, here: http://www.ready.noaa.gov/smoke_verifyhms.php[2]. Where smoke impacts were present in the map domain on a given day, those layers were included in Figures 1-4. Fire and smoke data displayed are for the high modeled ozone day, rather than the day before.

Because no start hour data were provided by the EPA for their modeled MDA8 concentrations on the high modeled ozone days, all trajectories were run backwards from 11:00 AM on the day in question. 11:00 is the average of the start times for the high MDA8 concentrations on the top 10 high monitored ozone days in 2011.

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[1] Stein, A.F., Draxler, R.R, Rolph, G.D., Stunder, B.J.B., Cohen, M.D., and Ngan, F., (2015). NOAA's HYSPLIT atmospheric transport and dispersion modeling system, Bull. Amer. Meteor. Soc., **96**, 2059-2077, http://dx.doi.org/10.1175/BAMS-D-14-00110.1

[2] NOAA. 2017. Meteorological archive data spanning June 2011 to August 2011. Downloaded from ARL website, http://www.arl.noaa.gov/index.php. Accessed March 2017.

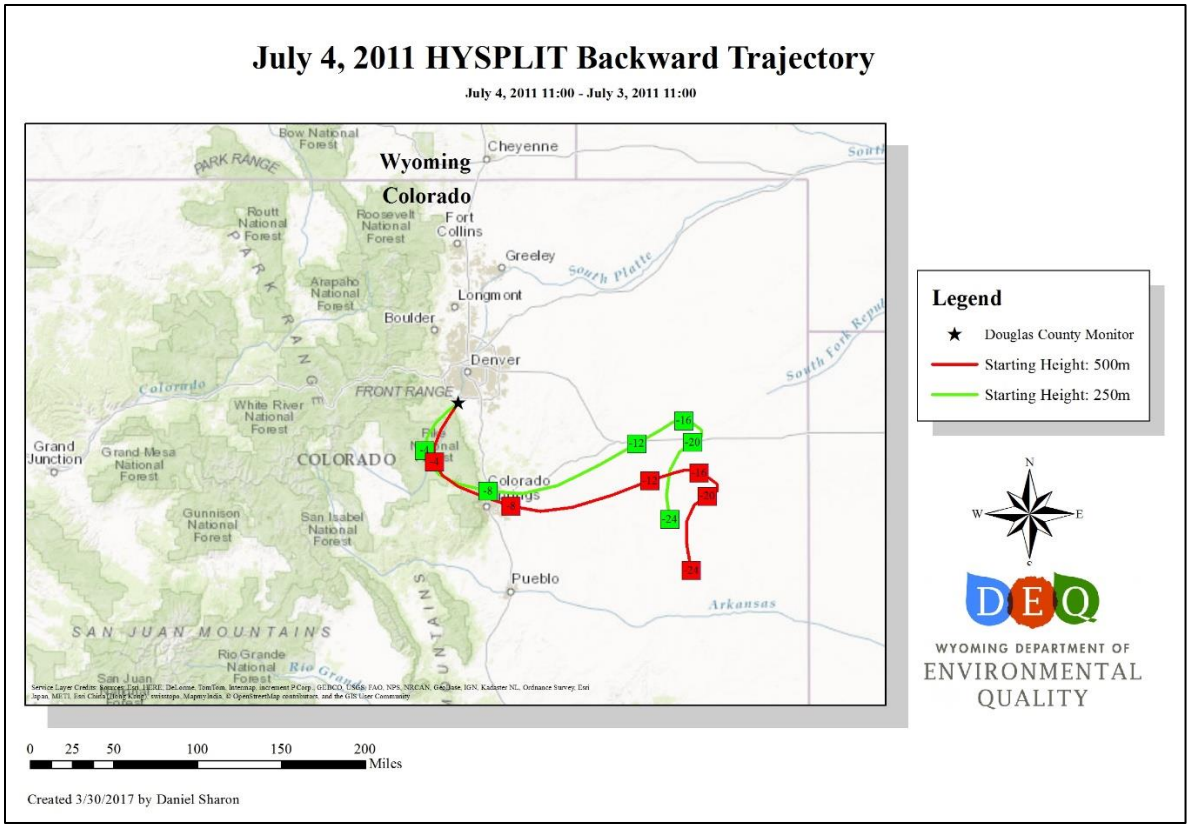


**Figure 1**. HYSPLIT Run for July 4, 2011

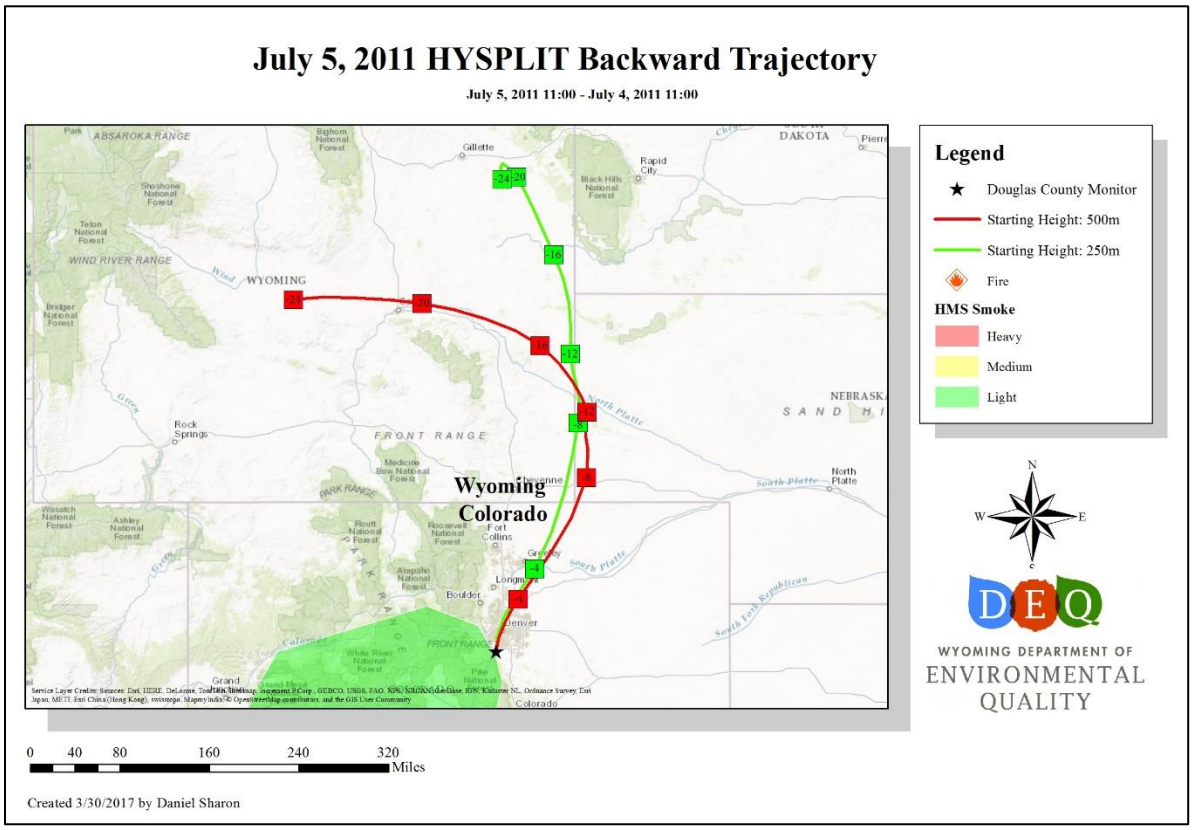


**Figure 2**. HYSPLIT Run for July 5, 2011

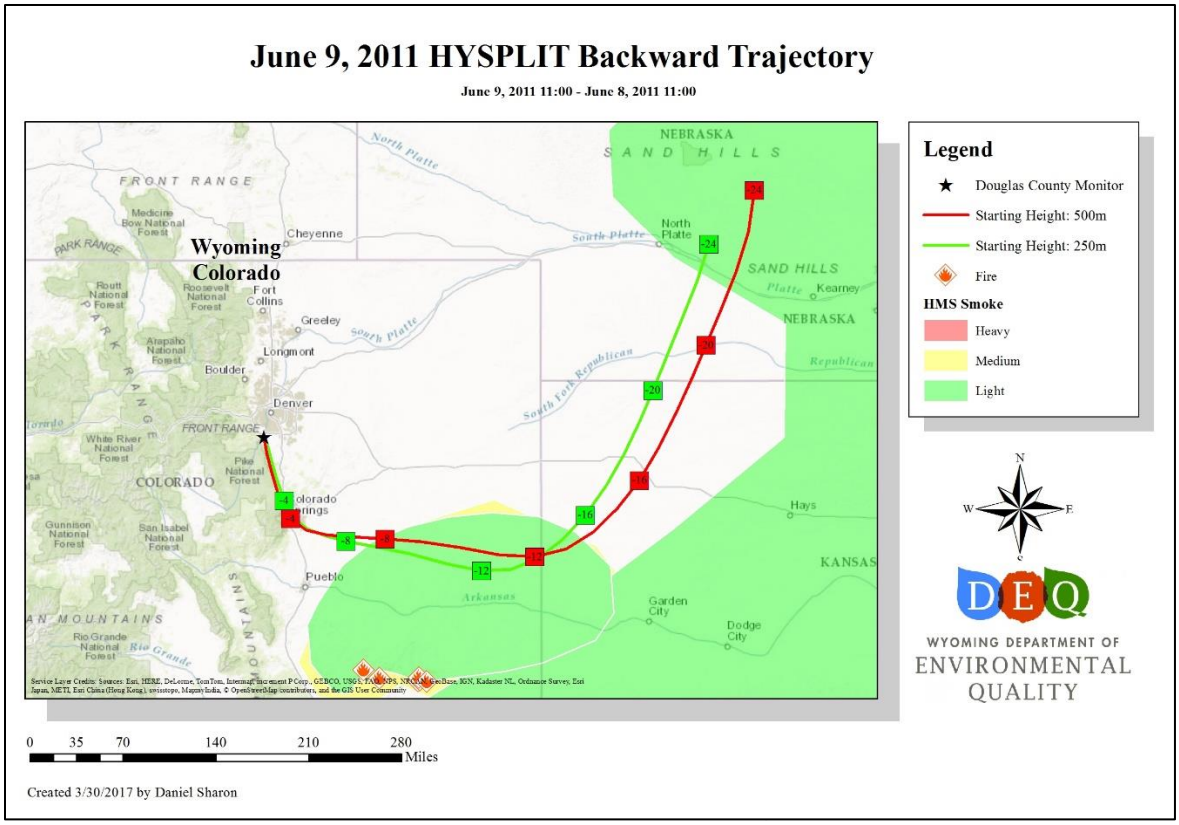


**Figure 3**. HYSPLIT Run for June 9, 2011

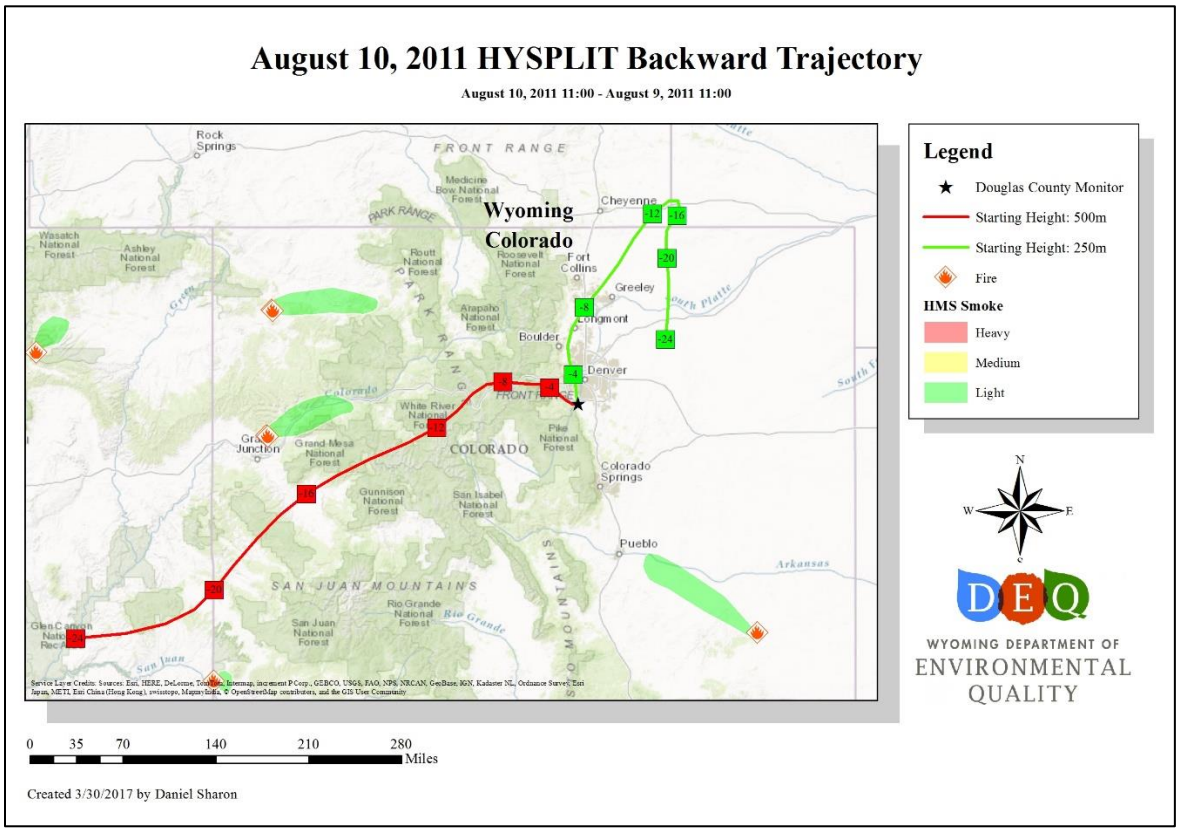


**Figure 4**. HYSPLIT Run for August 10, 2011

As can be seen in Figures 1-4 above, the only high modeled ozone days where trajectories passed through Wyoming were July 5, 2011 and August 10, 2011. Figure 2, showing the July 5, 2011 trajectory, also shows significant smoke impacts directly adjacent to the Douglas County monitor which would be expected to have a greater impact on the ozone value at this site than emissions from Wyoming and likely had a confounding effect on model performance. Figure 4 shows that on August 10, 2011 only the 250 meter trajectory passed through a small section of southeast Wyoming.

# Attachment A Supplement 2

Calculation of 2017 Contribution from Wyoming to Denver

EPA performed nationwide air quality modeling to support the CSAPR Update which was finalized on September 7, 2016. As described in the Air Quality Modeling Technical Support Document (AQMTSD) for this rule, air quality modeling was used to identify monitoring sites that are projected to be nonattainment and/or maintenance receptors for the 2008 NAAQS in 2017. The modeling was also used, in part, to quantify the contributions from projected 2017 anthropogenic emissions in each state, individually, to 2017 average design values at each receptor site. The modeling-based daily 8-hour contributions were used to calculate an average contribution metric, as documented in the AQMTSD. The results of this modeling identified that projected 2017 anthropogenic emissions in Wyoming contribute 1.18 ppb to the 2017 average design value at a maintenance receptor site in Douglas County, Colorado.

The AQMTSD, Table 4-1 provides an example of the calculation of the average contribution metric. Below we provide a table containing the data used to calculate this metric for Wyoming's contribution to the Douglas County receptor. The table includes (1) the 2017 model-predicted maximum daily average 8-hour (MDA8) ozone concentrations for this site on those days with modeled ozone exceedances in 2017 (i.e., MDA8 values $\geq$ 76 ppb), (2) the daily 8-hour average contributions from Wyoming corresponding to the time of the MDA8 concentration, and (3) the "pseudo" concentration which is the difference between modeled MDA8 concentration and the contribution from Wyoming. The data in the table are rank-ordered based on the MDA8 ozone concentrations on these days. The 2017 average design value for the Douglas County site is 75.5 ppb. Using the data in table below, the Relative Contribution Factor (RCF) for Wyoming to this site is:

(79.700 – 78.446) / 79.700 = 0.01573

The contribution metric value for Wyoming is calculated as:

75.5 x 0.01573 = 1.1876 which is truncated to 1.18 ppb

Data for Calculating Ozone Contribution from Wyoming to the Douglas County Receptor (units are ppb).

| Month | Day | 2017 Predicted MDA8 O3 (ppb) | Contributions from WY (ppb) | "Pseudo" 8-Hr O3 for WY (ppb) |
|---|---|---|---|---|
| 8 | 20 | 83.729 | 0.695 | 83.034 |
| 8 | 13 | 82.590 | 1.732 | 80.858 |
| 7 | 4 | 80.980 | 0.651 | 80.329 |
| 7 | 5 | 79.785 | 3.949 | 75.836 |
| 6 | 9 | 78.356 | 0.136 | 78.220 |
| 8 | 10 | 78.015 | 0.242 | 77.773 |
| 8 | 12 | 77.522 | 1.065 | 76.457 |
| 6 | 22 | 76.630 | 1.565 | 75.065 |
| | | | | |
| Multi-Day Average => | | 79.700 | - | 78.446 |
| 2017 Average Design Value is 75.5 ppb | | RCF => | 0.01573 | - |
| | | Contribution => | 1.1876 | - |
| | | Truncated Contribution => | 1.18 | - |

**Attachment B**

# Denver Metro/North Front Range 2017 Ozone Source Apportionment Modeling

## Abstract

The Denver Metro/North Front Range Moderate Area Ozone State Implementation Plan (SIP) included 2017 ozone attainment demonstration modeling for the 2008 0.075 ppm ozone NAAQS. The attainment demonstration modeling used a 2011 CAMx modeling platform that was based on the Western Air Quality Study (WAQS) CAMx 2011b database available through the Intermountain West Data Warehouse (IWDW (http://views.cira.colostate.edu/tsdw/) ). Additional modeling was performed to look ahead to the new 2015 0.070 ppm ozone NAAQS. Two types of 2017 ozone source apportionment modeling were conducted: (1) Local Source Analysis that analyzed ozone contributions from different source sectors within Colorado; and (2) Transport Analysis that analyzed ozone contributions due to emissions from western states. The ozone source apportionment (SA) modeling results can be visualized using a web-based SA Vis Tool that is discussed in this wiki. The Denver ozone SIP modeling was conducted by Ramboll Environ (http://www.ramboll-environ.com/) and Alpine Geophysics (http://www.alpinegeophysics.com/) under contract to the Denver Regional Air Quality Council (RAQC (http://raqc.org/) ) along with the Colorado Department of Public Health and Environment (CDPHE) Air Pollution Control Division (APCD (https://www.colorado.gov/pacific/cdphe/apcd) ).

Local Source Analysis SA Vis Tool (http://vibe.cira.colostate.edu/WAQS_SA_CO)

Transport Analysis SA Vis Tool (http://vibe.cira.colostate.edu/WAQS_SA_DENVER)

## Overview

The Denver 2017 ozone source apportionment (SA) modeling was conducted using the Comprehensive Air-quality Model with extensions (CAMx (http://www.camx.com/) ) photochemical grid model (PGM) Anthropogenic Precursor Culpability Assessment (APCA) version of the Ozone Source Apportionment Technology (OSAT). Two types of Denver 2017 ozone SA modeling were conducted following the procedures in the March 21, 2016 SA Modeling Plan (/wiki/Attachments/Source Apportionment/Denver/Denver_SA_Plan_2016-03-21.pdf): (1) Local Source Analysis; and (2) Transport Analysis. As described in more detail below, the Local Source Analysis ozone SA modeling calculated the 2017 ozone contributions resulting from different source sectors in Colorado. The Transport Analysis calculated ozone contributions due to anthropogenic emissions from western states as well as eastern U.S., Mexico, Canada, offshore and Boundary Conditions (BCs) around the CONUS modeling domain (i.e., contributions due to international transport and stratospheric ozone). The Denver ozone modeling used three domains as shown in Figure 1: (i) a Continental U.S. (CONUS) domain at 36 km grid resolution; (ii) a western U.S. (WESTUS) domain at 12 km grid resolution; and (iii) a Colorado domain at 4 km grid resolution. The Local Source Analysis ozone SA modeling was run on just the Colorado 4 km domain using boundary conditions (BCs) extracted from the 2017 CAMx 36/12 km CONS/WESTUS domain simulation. The Transport Analysis ozone SA run was run on the 36/12 km CONUS/WESTUS domains using BCs for the CONUS domain from the MOZART (https://www2.acom.ucar.edu/gcm/mozart) Global Chemistry Model (GCM). A description of the CAMx OSAT/APCA ozone source apportionment tool is provided in Chapter 7 of the CAMx User's Guide (http://www.camx.com/files/camxusersguide_v6-30.pdf) .

The Denver 2011 CAMx modeling platform was based on the CAMx 2011b 36/12/4 km modeling platform developed by the Western Air Quality Study (WAQS) and available on the Intermountain West Data Warehouse (IWDW (http://views.cira.colostate.edu/tsdw/) ). Details on the development of the WAQS CAMx 2011b modeling platform, including meteorological modeling and model performance evaluation (MPE), emissions modeling and the CAMx base case modeling, are available in reports (http://views.cira.colostate.edu/tsdw/Documents/?file=WAQS_Base11b_MPE_Draft_21Jan2016.doc) on the IWDW. The Denver ozone modeling adopted the WAQS 36 km CONUS and 12 km WESTUS domains, but redefined the 4 km domain to focus on Colorado (Figures 1 and 2). The meteorological inputs for the Denver CAMx database used the same WAQS WRF 2011 36/12/4 km simulation output, but they were re-processed using the latest WRFCAMx processor (WRFCAMx v4.4 released April 2016). For the Denver CAMx 36/12 km domains, emissions from version 2 of the 2011 National Emissions Inventory (NEI (https://www.epa.gov/air-emissions-inventories/2011-national-emissions-inventory-nei-data) ) were used. For the 4 km Colorado domain, emissions were provided by the CDPHE/APCD. On-road mobile source emissions were based on the MOVES2014 on-road mobile source emissions model. For the Denver ozone Nonattainment Area (NAA), detailed link-based activity data were used based on Traffic Demand Model (TDM) output. More details on the Denver ozone SIP modeling database are provided in the Modeling Protocol (/wiki/Attachments/Source Apportionment/Denver/Model_Protocol_Denver_RAQC_2017SIPv4.pdf), 2011 base case and model performance evaluation report (/wiki/Attachments/Source Apportionment/Denver/Denver_2017SIP_MPE_Finalv1.pdf) and 2017 ozone projection modeling report (/wiki/Attachments/Source Apportionment/Denver/Denver_2017SIP_2017AttainDemo_Finalv1.pdf).

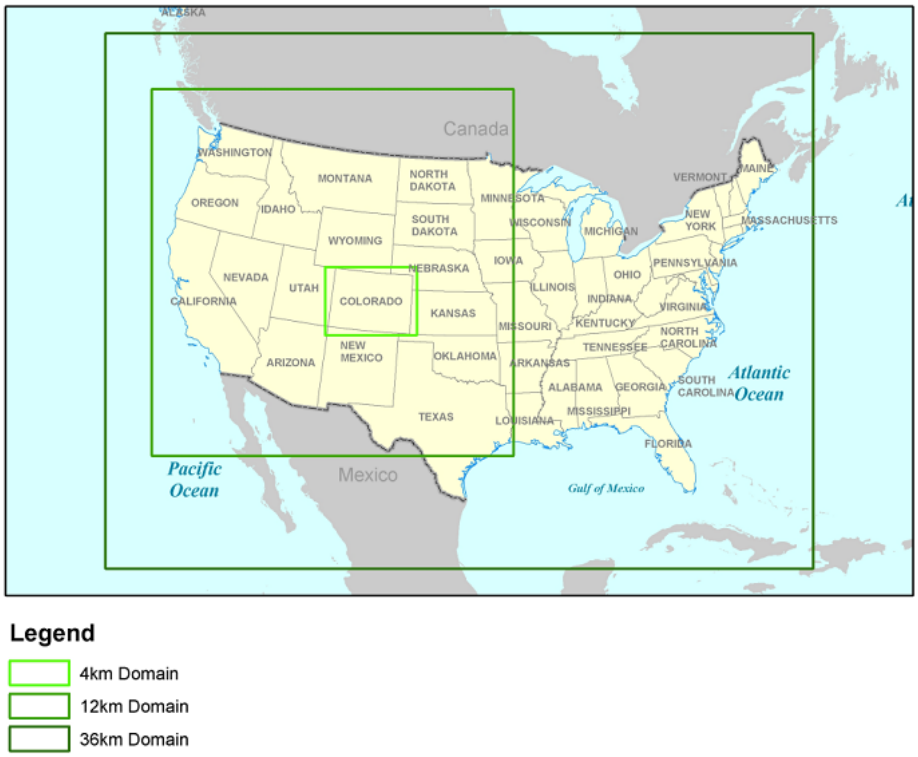


**Figure 1. Denver 36 km CONUS, 12 km WESTUS and 4 km Colorado CAMx modeling domains.**

# Denver 2017 Local Source Analysis Ozone Source Apportionment Modeling

The Local Source Analysis ozone source apportionment modeling was conducted using the Denver 2017c CAMx modeling database for the Colorado 4 km domain and the May-August 2011 modeling period. Boundary Conditions (BCs) for the Colorado 4 km domain were based on the CAMx 2017c 36/12 km CONUS/WESTUS simulation. The Colorado 4 km modeling domain is shown in Figure 2. The Anthropogenic Precursor Culpability Assessment (APCA[1]) version of the CAMx Ozone Source Apportionment Technology (OSAT) was used. CAMx version v6.3 (released April 2016) was used in the Denver ozone SA modeling that has several updates to CAMx v6.1 (released April 2014) used in the WAQS modeling. One important update of CAMx v6.3 is the new OSAT/APCA source apportionment algorithms that track reactive nitrogen and odd oxygen through the chemical species; more details on the differences on the OSAT/APCA formulations are given in Section 7.1 of the CAMx v6.3 user's guide (http://www.camx.com/files/camxusersguide_v6-30.pdf) .

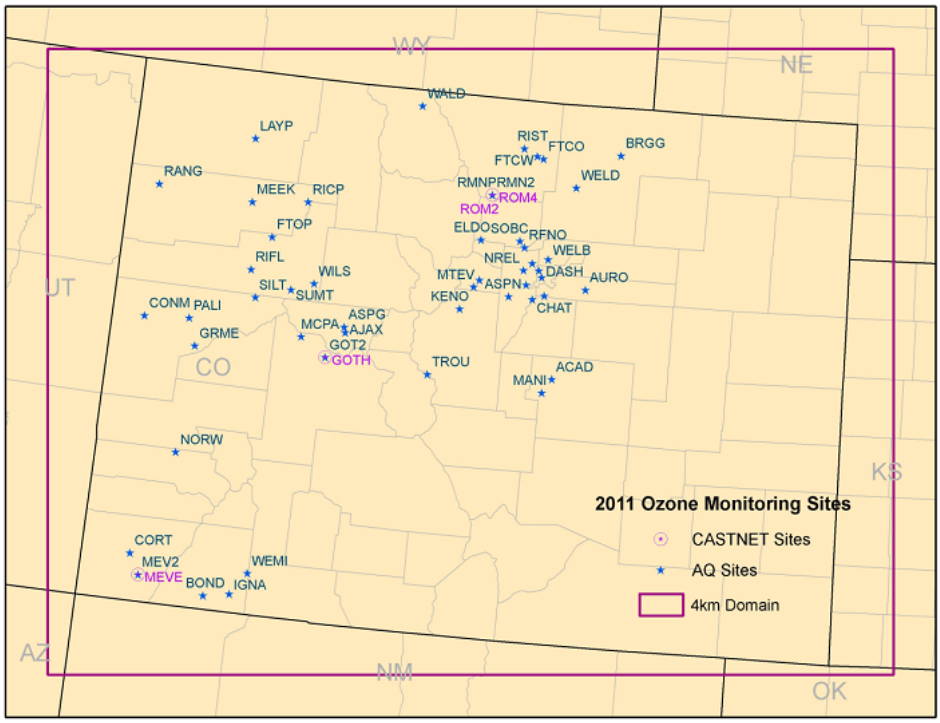


**Figure 2. Denver 4 km Colorado modeling domain with ozone monitors that were operating during some portion of 2011.**

Local Source Analysis Source Apportionment Groups

The Denver 2017 Local Source Analysis source apportionment modeling was configured to obtain ozone contributions from 4 Source Regions and 7 Source Categories. Separate ozone contributions were obtained for each Source Group that were defined as the intersection between the Source Regions and Source Categories. The Denver 2017 Local Source Analysis ozone source apportionment modeling used the following 4 Source Regions and 7 Source Categories;

Source Regions (Figure 3) (4)

- 9 counties that are included in the DMA/NFR NAA (see Figure 4)[2];
- Western Colorado;
- Eastern Colorado; and
- Slivers of Surrounding States

Source Categories (7)

- Natural Emissions (Biogenic, All Fires and Lightning NOX)
- Oil and Gas Emissions;
- On-Road Mobile;
- Non-Road Mobile;
- EGU Point;
- Non-EGU Point; and
- Remainder Anthropogenic.

With 4 Source Regions and 7 Source Categories, and the need to always include initial concentrations (IC) and Boundary Conditions (BCs) as their own separate Source Groups, that results in a total of 30 Source Groups for which separate ozone source contributions were obtained. The Western and Eastern Colorado Source Regions were defined as west and east of the Denver Metro/NFR NAA as shown in Figure 3. The use of separate Western and Eastern Colorado Source Regions will allow a better identification of the contributing sources. For example, the analysis separates the contributions from oil and gas emissions from the Denver-Julesburg Basin (east) versus the Piceance Basin (west). The CAMx 2017c 4 km Local Analysis Source Apportionment was conducted for May 1 through August 31 period using the 2011c 4 km WRF meteorology and 2017c base year emission inventory. Figure 4 displays the Denver Metro/NFR ozone NAA with locations of ozone monitoring sites where the results were analyzed.

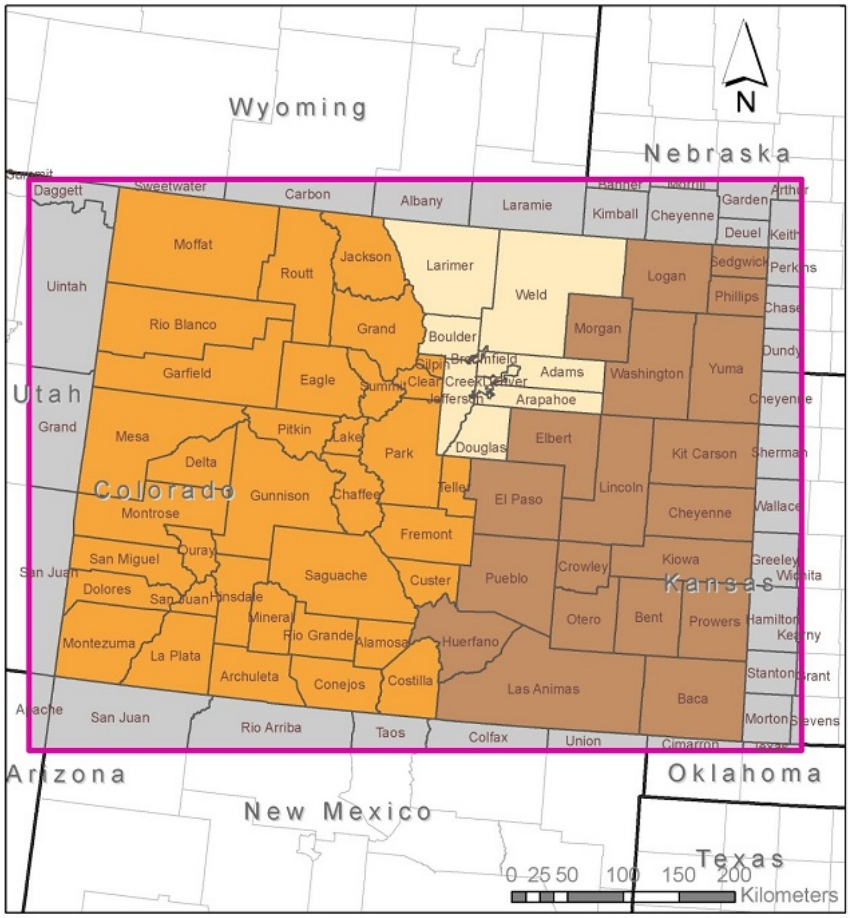


**Figure 3. Denver Local Source Analysis Source Regions.**

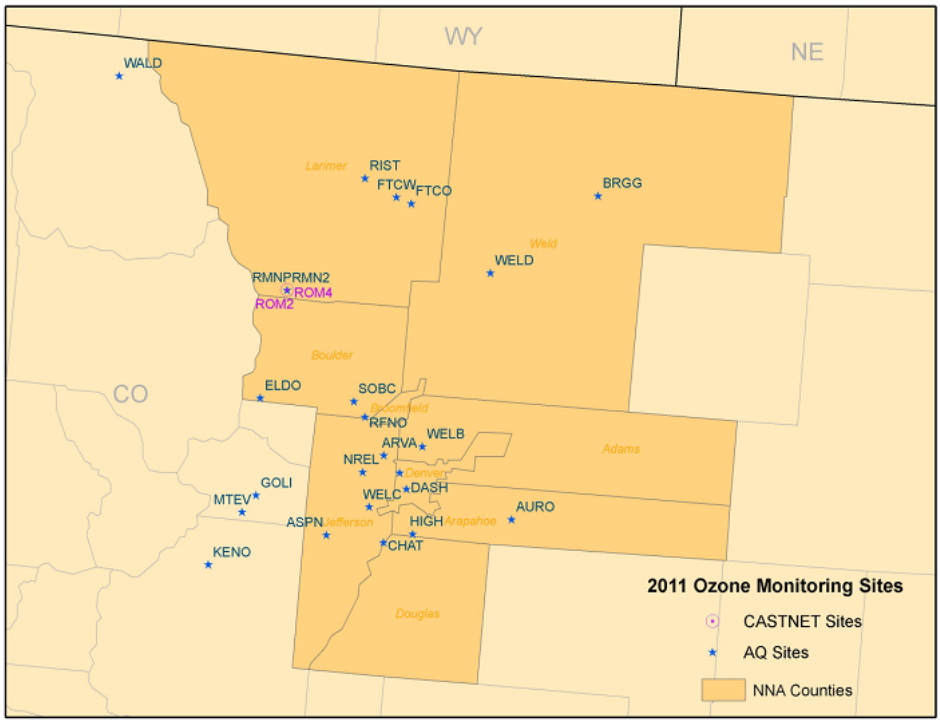


**Figure 4. Nine county Denver Metro/NFR ozone NAA and locations of ozone monitoring sites operating in 2011 (whole counties depicted, actual NAA excludes the northern portions of Larimer and Weld Counties).**

Local Source Analysis Ozone Source Apportionment Modeling Results

The CAMx 2017c 4 km Local Source Analysis ozone source apportionment modeling results were summarized in a PowerPoint Presentation (PPT (/wiki/pages/new?title=enter%20url%20or%20page%20name)). The ozone contributions of each Source Group to the maximum daily 8-hour average (MDA8) ozone concentrations at each monitoring site within the Denver Metro/NFR NAA and vicinity for each day of the modeling period were extracted and loaded into a web-based source apportionment visualization tool (SA Vis Tool) that can be accessed here: Local Source Analysis SA Vis Tool (http://vibe.cira.colostate.edu/WAQS_SA_CO)

The SA Vis Tool generates pie charts of 2017 ozone contributions by Source Region, Source Category or both (i.e., Source Groups) for monitoring sites within the Colorado 4 km modeling domain. The use of the SA Vis Tool involves the following:

- Selection of whether ozone SA visualization is for monitors from the AQS or CASTNet monitoring networks.
- Selection of the monitor where data is requested. This request can be made by selecting the monitor from drop down menus for State, County and Site or by using the map and selecting the monitor location.
- Select the day where results are desired. The day can be selected from a top five ozone day list for that monitor, from a drop down menu of ranked ozone days from high to low during the May-Sep modeling period or from a calendar. Note that multiple days can also be selected and the SA Tool will visualize the average contribution across those days.
- The SA Vis Tool will then visualize the modeled 2017 MDA8 ozone value for the selected monitoring site and day:
    - The top bar in the plot will list the modeled 2017 MDA8 ozone for the selected site/day(s), the amount the ozone is due to BCs around the 4 km Colorado domain (BC-4km) and the amount of the rest of the ozone (Non-BC); o Initially, the upper pie chart will be the Non-BC ozone contributions by Source Regions;
    - Initially, the lower pie chart will be the Non-BC ozone contributions by Source Categories;
    - Next to the lower pie chart will be a 10-day time series centered on the day in question that shows total MDA8 ozone and ozone due to BC-4km;
    - The monitoring site or day can be changed using drop down menus in the top left. The day can also be changed by clicking on the MDA8 ozone for a new day in the time series chart.
    - The Region/Category pie charts can be switched.
    - Clicking on one of the pie slices in the top pie chart provides more information in the bottom pie chart about that slice.

Figure 5 displays an example from the Local Source Analysis SA Vis Tool for the Chatfield monitoring site in Douglas County, Colorado based on August 26, 2011 meteorology. The total modeled 2017 MDA8 ozone is 74.2 of which 56.2 ppb (76%) is due to the BC-4km and the remaining 18.0 ppb (24%) non-BC portion is due to emissions in the Colorado 4 km domain. The pie charts show the contributions from the non-BC portion of the ozone with the percent numbers with the pie slices displaying the percent of total ozone (i.e., with the BC-4km contribution). For Figure 5, ozone from the Denver Metro/NFR NAA contributes 20.3% of the total ozone so since the non-BC portion of the ozone is 24% the NAA pie slice takes up 84% of the non-BC pie chart. In the lower Source Category pie chart the slice size is the fraction of the non-BC portion while the percent contributions are the contribution to the total ozone. The key to the definitions of the Local Source ozone SA modeling Source Contributions are as follows:

- NAT = Natural Emissions (Biogenic, Lightning NOx and Fires)
- OG = Oil and Gas Emissions
- OR = On-Road Mobile Source Emissions

- NR = Non-Road Mobile Source Emissions
- EGU = Electrical Generating Units Point Source Emissions
- nEGU = Non-EGU Point Source Emissions
- REM = Remainder Anthropogenic Emissions (Area Sources)

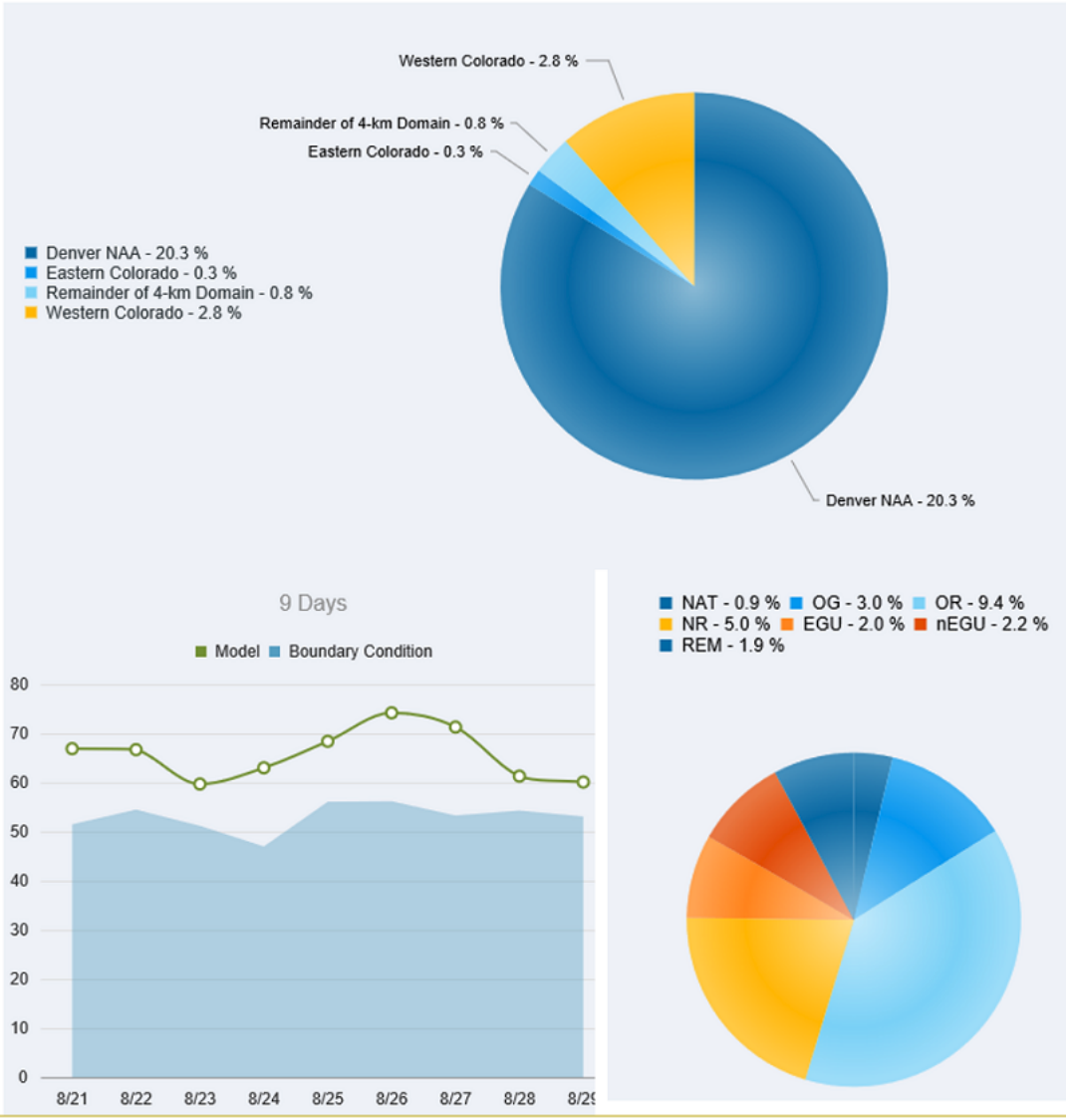


**Figure 5. Example Local Source SA Vis Tool display for Chatfield (Douglas County, Colorado) on August 26, 2016 that has total modeled 2017 MDA8 ozone of 74.2 with 58.2 ppb due to BC-4km and 18.0 ppb due to non-BC (Colorado sources), pie chart slice sizes are contributions to non-BC ozone and percentages are contributions to total MDA8 ozone.**

# Transport Analysis Ozone Source Apportionment Modeling

The Denver 2017 ozone source apportionment Transport Analysis ran the CAMx v6.3 APCA ozone source apportionment tool using a fully linked two-way nested 36/12 km 2017c modeling platform (see Figure 1). The ozone Transport Analysis was used to obtain the contributions of anthropogenic emissions from each western state and the portions of Mexico and Canada within the 36 km CONUS domain (Figure 1) to ozone concentrations in the Denver Metro/NFR NAA and other locations in the western U.S. The ozone Transport Analysis also obtained the ozone contributions due to natural emissions within the CONUS domain as well as the Boundary Conditions (BCs) around the 36 km CONUS domain (from the MOZART GCM); the BC contributions include ozone influences from international sources, global natural sources and stratospheric ozone. Transport Analysis Source Apportionment Groups The ozone Transport Analysis used the following Source Region and Category definitions:

Source Regions (21)

- 17 Western States (see Figure 6);
- Eastern US;
- Mexico (Mex);
- Canada (Can); and
- Offshore Shipping (OSS) that also included offshore O&G development.

Source Categories (2)

- Natural Emissions (Biogenic, All Fires and Lighting NOX); and
- Anthropogenic Emissions.

ICBC (6)

- IC;
- East BC;
- West BC;
- North BC;
- South BC; and
- Top BC.

With 21 Source Regions, times 2 Source Categories, plus 6 stratifications of ICBC, that results in separate ozone source apportionment contributions for 48 Source Groups.

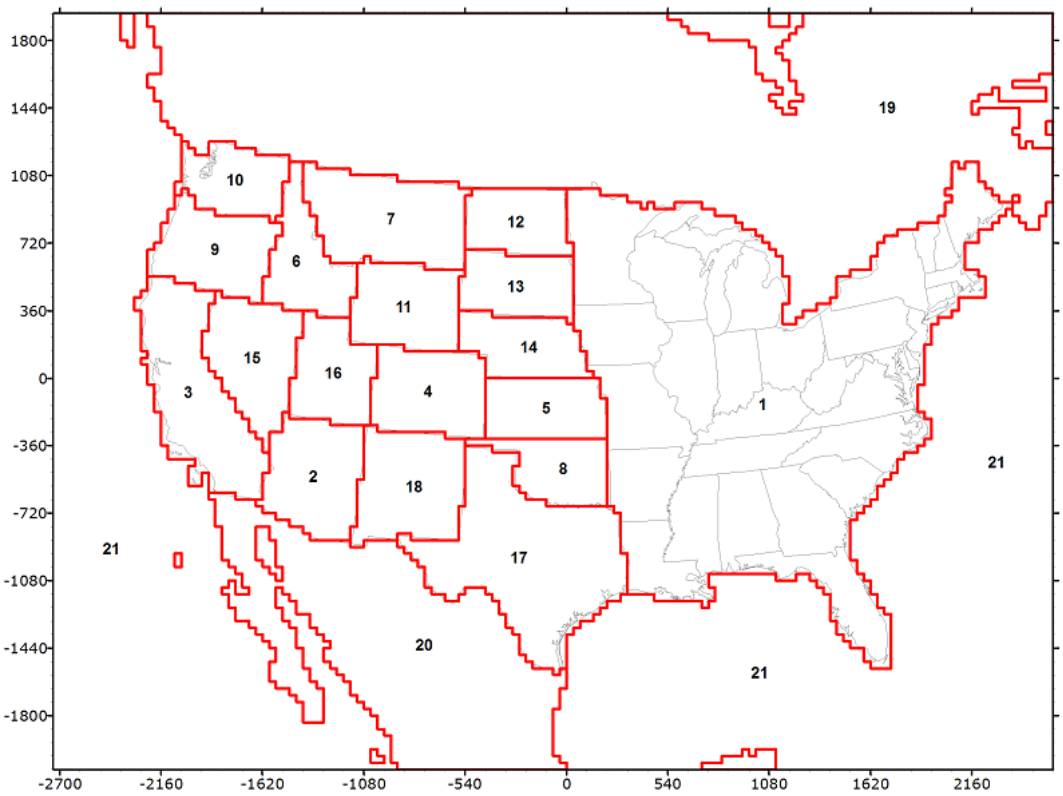


**Figure 6. Source Regions used in the ozone Transport Analysus CAMx 2017 ozone source apportionment simulation with separate contributions due to anthropogenic emissions from 17 western states, EUSA, Canada, Mexico and OSS.**

Transport Analysis Ozone Source Apportionment Results

The CAMx 2017c 36/12 km Transport Analysis ozone source apportionment modeling results were summarized in a PowerPoint Presentation (PPT (/wiki/pages/new?title=enter%20url%20or%20page%20name)). The results from the Transport Analysis SA simulation were post-processed to obtain the contributions of states anthropogenic emissions as well as other regions and natural emissions to 2017 MDA8 ozone concentrations at western U.S. monitoring sites. These contributions were loaded into the ozone SA Vis Tool for display as discussed above for the Local Source Analysis.

Transport Analysis SA Vis Tool (http://vibe.cira.colostate.edu/WAQS_SA_DENVER)

Figure 7 displays example results from the Transport Analysis Vis SA Tool for the 2017 MDA8 ozone at the same site (Chatfield) and day (August 26, 2011) used in the Figure 5 example display from the Local Source Analysis SA Vis Tool. The total 2017 MDA8 ozone at Chatfield on August 26, 2016 from the Transport Analysis is 68.4 ppb, which is lower than seen in the Local Source Analysis (74.2 ppb), which is likely because of the higher resolution grid (4 km) used in the Local Source Analysis SA modeling than used in the Transport Analysis (12 km) SA modeling. Of the 68.4 ppb total 2017 MDA8 ozone, 39.6 ppb (58%) is from the CONUS BCs and 28.9 ppb (42%) is from the non-BC contributions (i.e., anthropogenic and natural emissions within the CONUS modeling domain). The upper pie chart slices correspond to the total contributions from all emissions (anthropogenic and natural) in each Source Region, with Colorado being the largest contributor on this day at Chatfield, followed by Mexico, New Mexico and Arizona suggesting regional transport from the south-southwest on this day. The Source Region labels using state names are descriptive, where Off-Shore Shipping refers emissions in the Pacific and Atlantic Oceans and the Gulf of Mexico also includes offshore O&G emissions. The two Source Categories are Natural (NAT) and Anthropogenic (ANT) emissions whose contributions are identified in the lower pie chart.

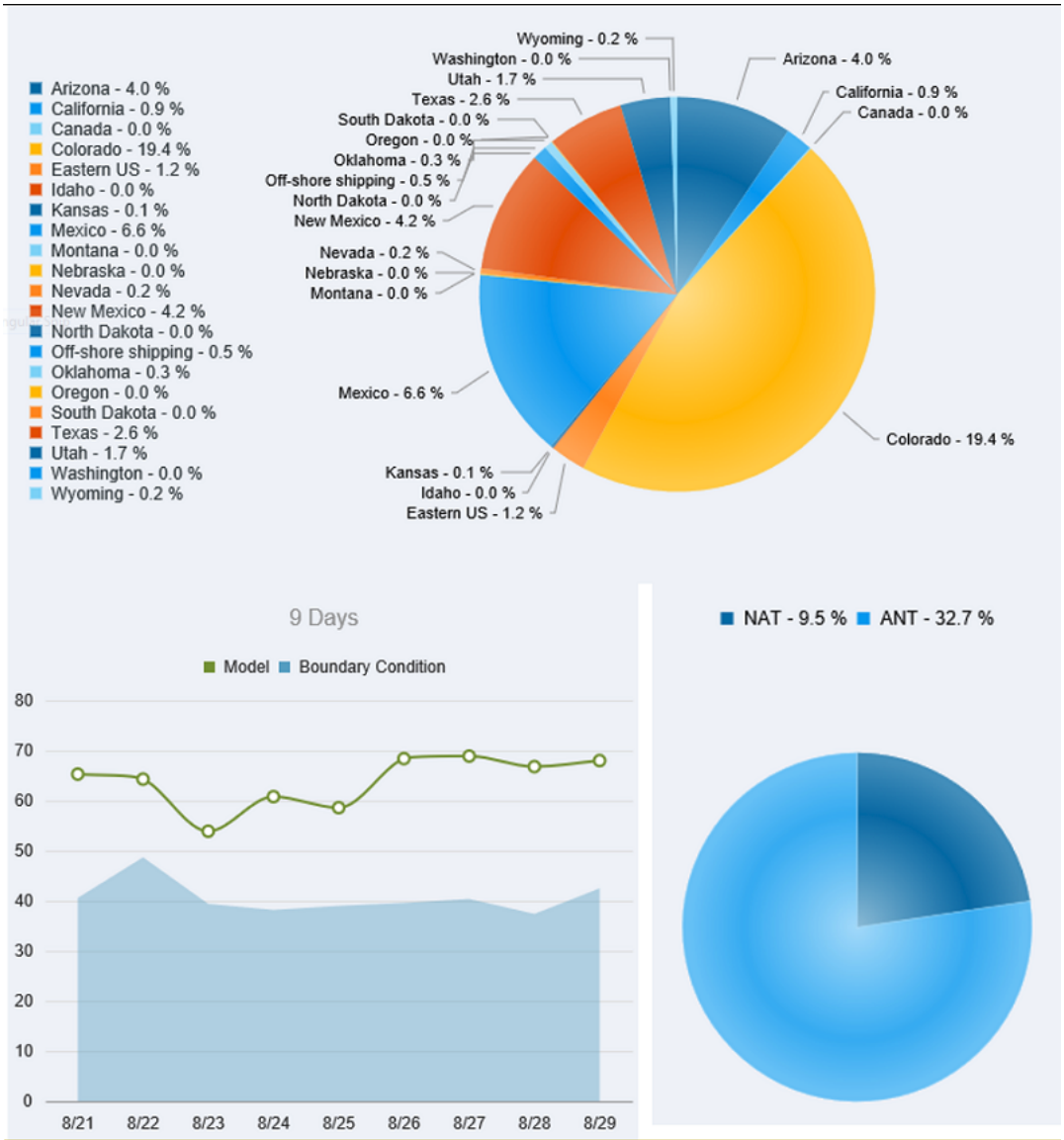


**Figure 7. Example Transport Analysis SA Vis Tool display for Chatfield (Douglas County, Colorado) on August 26, 2016 that has total modeled 2017 MDA8 ozone of 68.4 with 39.6 ppb (58%) due to BC-CONUS and 28.9 ppb (42%) due to non-BC (CONUS sources), pie chart slice sizes are contributions to non-BC ozone and percentages are contributions to total MDA8 ozone.**

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[1] APCA differs from the OSAT ozone source apportionment tool in that ozone is only allocated to Natural emissions when it is formed due to Natural NOx emissions interacting with Natural VOC emissions. For example, when ozone is formed due to the interaction of biogenic VOC with anthropogenic NOX emissions under VOC-limited ozone conditions, a condition where OSAT will assign the ozone formed to the biogenic VOC source category, APCA recognizes that biogenic VOC cannot be controlled so redirects the ozone formed to the anthropogenic NOX emissions category.

[2] The northern portions of Larimer and Weld Counties are not part of the Nonattainment Area, but segregating those areas the Source Region would have minimal impact on the Source Apportionment.

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**Attachment C**

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Submitted via email and www.regulations.gov

December 19, 2016

The Honorable Gina McCarthy
Administrator, U.S. Environmental Protection Agency
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Washington, DC 20460

**Comments of the Utility Air Regulatory Group on the Proposed Rule, "Approval and Disapproval and Promulgation of Air Quality Implementation Plans; Interstate Transport for Wyoming," 81 Fed. Reg. 81712 (Nov. 18, 2016), EPA-R08-OAR-2016-0521**

Dear Administrator McCarthy:

On November 18, 2016, the United States Environmental Protection Agency ("EPA") published a proposed rule entitled "Approval and Disapproval and Promulgation of Air Quality Implementation Plans; Interstate Transport for Wyoming." 81 Fed. Reg. 81712. EPA proposes partial approval and partial disapproval of a Wyoming state implementation plan ("SIP") submittal addressing Clean Air Act ("CAA") infrastructure SIP requirements with respect to interstate transport for the 2008 ozone national ambient air quality standard ("NAAQS") of 75 parts per billion.[1] The following comments on EPA's proposed rule are

[1] These comments specifically address EPA's proposed actions with respect to Wyoming's SIP submittal for interstate transport requirements for the 2008 ozone NAAQS under "prong 1" and "prong 2" of section 110(a)(2)(D)(i) of the CAA (*i.e.*, the "significant contribution" and "interference with maintenance" clauses of that provision). EPA's proposed rule also proposes approval of certain other Wyoming infrastructure SIP submittals and disapproval of certain other such submittals. The fact that these comments do not specifically address proposed actions to disapprove other SIP submittals, including EPA's proposed disapproval of visibility-related interstate transport SIP submittals under "prong 4" of section 110(a)(2)(D)(i), should not in any way be construed as expressing or implying support for those proposed actions.

respectfully submitted on behalf of the Utility Air Regulatory Group ("UARG").[2]

With respect to prongs 1 and 2, the proposed rule is based—apparently entirely—on information from modeling analyses that EPA conducted for its Cross-State Air Pollution Rule (CSAPR) Update rulemaking, 81 Fed. Reg. 74504 (Oct. 26, 2016). *See* 81 Fed. Reg. at 81714-16. In the proposed rule, EPA notes that in the CSAPR Update rulemaking, EPA concluded that

> [a]s to western states, . . . there may be geographically specific factors to consider in evaluating interstate transport, and given the near-term 2017 implementation timeframe, the EPA focused the final CSAPR Update on eastern states. *See* CSAPR Update at 81 FR 74523. Consistent with our statements in the CSAPR Update, the EPA intends to address western states, like Wyoming, on a case-by-case basis.

*Id.* at 81715. Based on its CSAPR Update rulemaking information, EPA proposes to approve the Wyoming prong 1 SIP submittal for the 2008 ozone NAAQS. EPA says that its "modeling indicates that Wyoming does not contribute above the one percent threshold to any nonattainment receptors." *Id.* Although UARG does not believe EPA's one-percent-of-NAAQS contribution threshold should be determinative in this matter—*i.e.*, UARG believes it is *not* the case that a state may properly be subjected to interstate-transport emission reduction obligations on the basis that the state contributes more than one percent of the NAAQS to air quality at a downwind location—UARG agrees that EPA should find that Wyoming does not contribute significantly to nonattainment of the NAAQS in any other state and therefore should approve this element of Wyoming's SIP submittal.

EPA proposes, however, to conclude that Wyoming's emissions contribute, in an amount above the one percent threshold, to ozone concentrations at one "maintenance-only" monitor, *i.e.*, Douglas County, Colorado, monitor ID number 80350004, in the Denver area. *Id.* On this basis, EPA concludes that "the State's emissions require further evaluation, taking into account both air quality and cost considerations, to determine what, if any, emissions reductions might be necessary to address the State's emission reduction obligation pursuant to 110(a)(2)(D)(i)(I)" prong 2. *Id.*

In its proposed rule, EPA properly refrains from "determining that one percent of the NAAQS is always an appropriate threshold for identifying interstate transport linkages for all

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[2] UARG is a voluntary group of electric generating companies and national trade associations. The vast majority of electric energy in the United States is generated by individual members of UARG or other members of UARG's trade association members. UARG participates on behalf of its members in CAA proceedings that affect the interests of electric generators.

states in the West." *Id.* Indeed, for reasons UARG explained in its comments on the proposed version of the CSAPR Update rule, EPA should not use the one-percent level as a contribution threshold in its section 110(a)(2)(D)(i)(I) analyses—and certainly should not use it (or any other specific threshold) as a bright-line test that results in subjecting states to interstate-transport emission reduction obligations. *See* UARG Comments on Proposed CSAPR Update Rule at 22-26 (Feb. 1, 2016), EPA-HQ-OAR-2015-0500-0253. EPA also should not establish such obligations for states based on a mistaken interpretation of the CAA's provisions with respect to what EPA here calls a downwind "maintenance" receptor. *See id.* at 33-37.

Although it purports not to apply mechanically a one-percent-of-NAAQS threshold in this proceeding, EPA nonetheless faults Wyoming because, according to EPA, the state's "SIP submittal neither identified nor included any ozone or ozone precursor emission reduction measures that the EPA could evaluate to determine whether the state has fully addressed . . . transport impacts." 81 Fed. Reg. at 81715. On this basis, EPA states that it "cannot conclude that Wyoming's SIP contains sufficient provisions to prohibit emissions that will interfere with maintenance of the 2008 ozone NAAQS in the Denver, Colorado area." *Id.*

It appears, however, that EPA is unreasonably refusing to allow Wyoming an adequate opportunity to address these matters. In the present rulemaking, the Air Quality Division of the Wyoming Department of Environmental Quality submitted a letter to EPA requesting an extension of the December 19, 2016 deadline for submission of comments because the existing comment period "is insufficient given the technical analysis required to formulate an adequate response to the Proposed Rule." EPA-R08-OAR-2016-0521-0012 at 1 (Nov. 23, 2016) ("Wyoming Letter"). The letter noted that "[t]he Division will need to devote significant time and energy reviewing EPA's basis for the approval and disapproval" of the SIP submittals and that EPA's proposed disapproval of the prong 2 SIP submittal for the 2008 ozone NAAQS "will require significantly more analysis than other parts of the Proposed Rule." Noting that the SIP submittal at issue was received by EPA on February 6, 2014, *see* 81 Fed. Reg. at 81713—and that EPA therefore had had more than two years and nine months to review, analyze, and act on the SIP, Wyoming said it "believes it is reasonable to allow at least an additional ninety (90) days to review EPA's Proposed Rule involving multiple Wyoming State Plans" and to have "the opportunity to provide additional information in support" of its ozone transport SIP submittal. Wyoming Letter at 1. Wyoming emphasized that it "remains committed to working with EPA, but is concerned that *EPA has not yet worked with western states or western regional planning organizations on region-appropriate analysis* for interstate transport." *Id.* (emphasis added).

UARG shares the concern expressed by Wyoming and believes the state's request is eminently reasonable and should be granted. EPA, however, denied Wyoming's request in a letter dated December 6, 2016. Without in any way disputing Wyoming's statement that the

state needs additional time to develop and provide relevant information—and without disputing that, as Wyoming's letter explained, it would be reasonable to provide that additional time—EPA asserted that it was forced to deny any extension of the public comment period on the grounds that attorneys for Sierra Club "will not agree" to an extension. EPA-R08-OAR-2016-0521-0013. Indeed, Sierra Club's refusal to allow more time was the *only* reason EPA cited for denying the state's reasonable request.

In describing Sierra Club's veto of any extension of the public comment period, EPA stated:

> A federal court currently has pending before it a motion to enter a partial consent decree addressing deadlines for numerous SIP submissions nationwide, including this one. *Opposing counsel in that case* [*i.e.*, Sierra Club's counsel] has already granted EPA an extension of the negotiated deadline for this SIP submission until January 17, 2017, but *will not agree to the further extension* sought by Wyoming. Accordingly, *we cannot grant your request to extend the comment period.*

*Id.* (emphases added). It appears that the case EPA referred to is *Sierra Club v. McCarthy*, Case No. 3:15-cv-04328-JD (N.D. Cal.), in which Sierra Club and EPA jointly submitted a motion on October 15, 2016, asking the U.S. District Court for the Northern District of California in San Francisco to enter a proposed consent decree, negotiated between Sierra Club and EPA, that would set a deadline of January 17, 2017, for EPA to sign a notice of final rulemaking to approve or disapprove the Wyoming SIP submittals. *Sierra Club v. McCarthy*, Joint Motion To Enter Partial Consent Decree (Oct. 15, 2015) (Document 57); *Sierra Club v. McCarthy*, [Proposed] Partial Consent Decree at ¶ 1.a. (Oct. 15, 2015) (Document 57-1) ("Proposed Consent Decree").

It is improper for EPA to rely on this proposed consent decree to refuse to allow the public and stakeholders, including the Department of Environmental Quality of the directly affected state, any additional time to provide information to EPA in this rulemaking. First, the district court's docket in this case confirms that the proposed consent decree is only that—a *proposed* decree, which the court has not entered. Equally important, EPA fails to explain why—despite the fact that it has not disputed the need for additional time for Wyoming to develop and submit relevant information—EPA will not either (i) take action to modify the proposed consent decree or, in the absence of a modification of the proposed consent decree, (ii) file a motion with the district court to modify the (still-not-binding) January 17, 2017 deadline for good cause, as the proposed consent decree expressly authorizes EPA to do, *see* Proposed Consent Decree at ¶ 5. In all events, it is improper for EPA to deny an affected state's opportunity to submit meaningful comments and to prepare relevant technical and other information for EPA's consideration—information that EPA itself characterizes as

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appropriate for assessment of the issues at stake in the rulemaking, *see* 81 Fed. Reg. at 81715—on the sole basis that a single private group does "not agree."

Particularly under these circumstances, EPA should not make final its proposed disapproval of Wyoming's prong 2 SIP submittal for the 2008 ozone NAAQS. Instead, EPA should make final its proposed approval of SIP submittals, including the prong 1 submittal for the 2008 ozone NAAQS, and reopen the public comment period on the proposed SIP disapprovals for at least 90 days to allow Wyoming and other commenters time to provide any analyses and other information to EPA regarding the prong 2 SIP submittal and any proposed SIP disapproval actions. Furthermore, UARG urges EPA to respond favorably to Wyoming's request that EPA work collaboratively with the affected western states in this important matter. Moreover, in addressing this matter, EPA must take into account the numerous and important factors that affect consideration of any interstate transport issues in western states.[3]

UARG appreciates the opportunity to provide these comments. Please contact me if you would like to discuss UARG's comments.

Sincerely,

Norman W. Fichthorn
*Counsel to the Utility Air Regulatory Group*

[3] *See, e.g.*, Comments of the Western Energy Supply and Transmission Associates on the Proposed Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS, at 2-4, EPA Docket No. EPA-HQ-OAR-2015-0500-0360 (Feb. 1, 2016).

WESTERN ENERGY ALLIANCE

December 19, 2016

Adam Clark
Air Program
Environmental Protection Agency Region 8
Mail Code 8P-AR
1595 Wynkoop St.
Denver, CO 80202

**RE: Air Quality State Implementation Plans; Approvals and Promulgations; Wyoming; Interstate Transport, Docket ID No. EPA-R08-OAR-2016-0521-0001**

Dear Mr. Clark:

Western Energy Alliance is writing to express concern with EPA's proposed action on the State of Wyoming's State Implementation Plan (SIP) for ozone interstate transport. EPA's proposed action does not align with the weight of evidence and inappropriately relies on flawed modeling and methodologies. In addition to the comments submitted here, we fully support and endorse the State of Wyoming's comments on this proposed action.

Western Energy Alliance represents over 300 companies engaged in all aspects of environmentally responsible exploration and production of oil and natural gas in the West. Alliance members are independents, the majority of which are small businesses with an average of fifteen employees.

We believe EPA's proposed decision to disapprove the Wyoming Department of Environmental Quality's (WDEQ) SIP runs contrary to long-standing agency practice of accepting a "weight of evidence" approach to evaluating whether an area has a meaningful impact on National Ambient Air Quality Standards (NAAQS) maintenance in downwind states. Instead of accepting WDEQ's well-reasoned approach, EPA relies on faulty modeling results stemming from the Cross-State Air Pollution Rule (CSAPR) Update for the 2008 ozone NAAQS. WDEQ raised concerns with the suitability of CSAPR modeling in its original comments, which EPA later dismissed based on insufficient supporting evidence from WDEQ. Since WDEQ's ozone transport SIP was developed in 2014 before the updated CSAPR modeling guidance was developed, it is inappropriate for EPA to hold WDEQ analysis to standards that did not exist when the SIP was developed.

EPA has inappropriately put the onus on Wyoming to provide evidence to support or deny EPA's decisions on the suitability of CSAPR modeling. Moreover, it is unreasonable for EPA to expect an exhaustive technical analysis of the CSAPR modeling within a 30-day

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comment window. The burden should rest on EPA to explain its justification for reversing long-standing policy about the CSAPR modeling deficiencies for the West.

The modeling results EPA points to in the disapproval decision are flawed because the CSAPR model has not been adapted to the unique concerns of western states. Primarily developed as a tool for eastern states in the ozone transport region, the CSAPR model fails to account for the topography, altitude, and climate of the western United States. Climate factors characteristic of the West include stratospheric intrusions, a long and severe wildfire season, abundant sunshine, and lack of summertime precipitation, all of which the CSAPR model fails to adequately consider. In the decision, EPA has provided no explanation or evidence for why it has determined modeling results need not account for these considerations. Additionally, EPA has failed to provide sufficient evidence that it reviewed and considered state exceptional events packages that may provide mitigating circumstances for NAAQS violations based on events such as wildfires or stratospheric intrusions of ozone. It is also unclear whether EPA has accounted for background ozone in CSAPR modeling and technical analysis. Background ozone in the western United State can contribute as much as 60 parts per billion (ppb) or more, which is critically important for NAAQS attainment and maintenance.[1]

Instead, EPA points to supposed shortcomings in WDEQ's analysis, including failure to contemplate contributions from other nonattainment areas in Utah and Colorado. As EPA is likely aware, the designated nonattainment area along Utah's Wasatch Front is 46 miles southwest of the westernmost corner of Wyoming, and is separated by the prominent Wasatch mountain range, which rise nearly 8,000 feet above the valley floor. The prevailing wind direction in Salt Lake City year-round is south or southeast, meaning it is highly unlikely that Wyoming is meaningfully contributing to impaired air quality in the Wasatch Front nonattainment area. Furthermore, Utah's impaired air quality is often associated with atmospheric inversions within the Salt Lake valley that coincide with calm winds that trap pollutants within the valley. WDEQ has made an entirely justifiable assumption that the weight of evidence does not warrant any further evaluation of its contributions to Wasatch Front PM 2.5 or ozone exceedances. If EPA doubts the validity of WDEQ assessment on impacts in Utah, it should provide a well-reasoned explanation, which it has not done in this proposed action.

EPA's decision appears to point to other out-of-state regions that have recorded NAAQS violations but may not have been formally designated yet. One such area is likely Utah's Uinta Basin, which is undergoing the nonattainment designation process. However, ozone exceedances in the Uinta Basin, as has been documented through extensive scientific study, are associated with light winds, atmospheric inversions, and local snow cover.[2] The Uinta Mountains to the north provide a physical barrier that helps form the inversion

[1] *Estimating North American Background Ozone in U.S. Surface Air With Two Independent Global Models: Variability, Uncertainties, and Recommendations*. Fiore et al. December 26, 2013.
[2] *Final Report, 2014 Uinta Basin Ozone Study*. Till Stoeckenius et al. February 2015.

conditions that produce ozone. As scientists have thoroughly demonstrated, the ozone exceedances are concentrated below 6,000 feet in elevation. After three years of study, scientists did not find ozone transport from Wyoming playing an influencing factor in the Uinta Basin. It appears that EPA may be expecting WDEQ to prove a negative by studying its impact on neighboring states.

Similarly, Colorado's ozone nonattainment challenges are affected by the northern Front Range's climate, geography, and local emissions sources. Wyoming's assessment that the year-round westerly prevailing wind direction makes it reasonable to infer that Cheyenne, a city located 100 miles north-northeast of Denver, is unlikely to be a driving factor behind ozone levels in the Denver Metro/North Front Range Ozone Nonattainment Area. By calling for further study based on its own flawed and incomplete modeling and analysis, EPA is putting an unreasonable burden on WDEQ. Prior to imposing any such burden, EPA should support that its own justifications based on CSAPR modeling and subsequent analysis meet the same high analytical standard it is requiring of the states.

We encourage EPA to accept the State of Wyoming's ozone transport SIP as proposed, which is based on a well-reasoned approach that relies on the weight of evidence. We are available to discuss this matter further with EPA.

Sincerely,

Kathleen M. Sgamma
President

BASIN ELECTRIC POWER COOPERATIVE
A Touchstone Energy® Cooperative

December 19, 2016

**Submitted electronically via:** http://www.regulations.gov

**Docket ID:** EPA–R08–OAR–2016–0521

Administrator Gina McCarthy
U.S. Environmental Protection Agency
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Re: Comment Submittal on the U.S. Environmental Protection Agency's "Approval and Disapproval and Promulgation of Air Quality Implementation Plans; Interstate Transport for Wyoming" (November 18, 2016)

Dear Administrator McCarthy:

Basin Electric Power Cooperative (**Basin Electric**) appreciates this opportunity to submit comments on U.S. Environmental Protection Agency's (**EPA**) proposed *Approval and Disapproval and Promulgation of Air Quality Implementation Plans; Interstate Transport for Wyoming* published in the November 18, 2016 Federal Register.

Basin Electric is a regional, consumer-owned, generation and transmission cooperative formed in 1961 to supply supplemental power to a consortium of rural electric distribution cooperatives. Basin Electric supplies 137 rural electric member cooperative systems with wholesale electric power who in turn serve approximately 2.9 million consumers in a nine-state area. Basin Electric's core business is generating and delivering electricity to wholesale customers, primarily our member systems. At the end-of-year 2015, Basin Electric's generation portfolio consisted of 5,594 megawatts (**MW**) of wholesale electric generating capacity, located in four western states. Four coal-fired electric generating stations comprise the largest proportion (56.4%) of Basin Electric's generation portfolio. The remainder of Basin Electric's generation fleet consists of natural gas (18.4%), wind (14.5%), hydroelectric (5.6%), oil (3.2%) nuclear (1.1%) and recovered energy (0.8%) generation facilities. Basin Electric has additional natural gas generation projects that will be commercially available by the end of 2016 that will bring an additional 202 MW of generation capacity.

Basin Electric submits these comments electronically to docket ID EPA–R08–OAR–2016–0521 as noticed in the federal register at 81 Fed. Reg. 81712 (November 18, 2016), per the instructions in EPA's proposed action.

EPA's proposed action involves portions of six submissions from the State of Wyoming that are intended to demonstrate that Wyoming's State Implementation Plan (**SIP**) meets certain interstate transport requirements of the Clean Air Act (Act or CAA). Basin Electric's comments are limited to only to the "certification of Wyoming's infrastructure SIP for the 2008 ozone NAAQS" that Wyoming DEQ submitted to EPA on February 6, 2014, and EPA's proposed

decision to "disapprove the prong 2 portion of the February 6, 2014, 2008 ozone NAAQS infrastructure submittal."[1]

EPA's disapproval of the prong 2 portion of the February 6, 2014, 2008 ozone NAAQS infrastructure submittal is premature and inappropriate for the reasons discussed in the comments below.

Instead of "disapprov[ing] the prong 2 portion of [Wyoming's] February 6, 2014, 2008 ozone NAAQS infrastructure submittal,"[2] EPA and Wyoming should agree to allow Wyoming to re-submit the prong 2 portion of Wyoming's February 6, 2014, 2008 ozone NAAQS infrastructure submittal after the following have occurred:

- The resolution of the litigation involving the appeal of EPA's federal implementation plan (**FIP**) for Wyoming for Regional Haze involving nitrogen oxide (**NOx**) emissions from BART-eligible sources[3] and "reasonable progress" sources;[4]
- Wyoming is given a reasonable opportunity to evaluate the factors and analysis set forth at 81 Fed. Reg. at 81713-14, much of which was either unavailable or legally unclear at the time Wyoming submitted its "certification of Wyoming's infrastructure SIP for the 2008 ozone NAAQS" to EPA on February 6, 2014;
- Wyoming is given an opportunity to evaluate the appropriateness of using the CSAPR model as a screening tool to determine the impacts of interstate transport of NOx and whether those emissions "significantly contribute to nonattainment of the NAAQS" ozone levels in Colorado and other neighboring States.

## 1.0 Statement of Basin Electric's interest in this action by EPA.

Basin Electric is a not-for-profit wholesale electric power supply cooperative that generates power from a diverse mix of fuel sources, including coal, natural gas, oil, and wind. Basin Electric is one of a group of six regional, consumer-owned public power energy organizations, known as the Missouri Basin Power Project. The Missouri Basin Power Project built and owns the Laramie River Station (**LRS**) located near Wheatland, Wyoming. Basin Electric has a 42.27 percent ownership interest in LRS, which consists of three 570 MW net coal-fired electricity units. LRS began "early action" compliance with Wyoming's SIP for Regional Haze by installing over-fire air to reduce NOx emissions from LRS Unit 1 in 2009, LRS Unit 2 in 2010, and LRS Unit 3 in 2011, and by installing new state-of-the-art low-NOx burners on LRS Unit 1 in 2012, LRS Unit 2 in 2013, and LRS Unit 3 in 2014.[5]

On January 30, 2014, EPA disapproved the NOx portion of the Regional Haze SIP that Wyoming had submitted to EPA on January 12, 2011, and substituted its own FIP requiring additional BART controls for NOx on all three LRS Units beyond what Wyoming's BART NOx

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[1] 81 Fed. Reg. at 81716.
[2] 81 Fed. Reg. at 81716.
[3] "BART" refers to "best available retrofit technology" as defined by the factors listed in CAA § 169A(g)(2), 42 U.S.C. § 7491(g)(2), and BART-eligible sources are the sources that are required to install BART at CAA § 169A(b)(2)(A), 42 U.S.C. § 7491(b)(2)(A).
[4] The term "reasonable progress" is defined by the factors listed in CAA § 169A(g)(1), 42 U.S.C. § 7491(g)(1).
[5] LRS had previously installed an earlier version of low-NOx burners well over a decade before the Regional Haze requirements applied, which also resulted in a significant reduction of NOx emissions at that time.

SIP had required.[6] Similar additional NOx controls were required under the FIP for many other Wyoming sources. The FIP was appealed by LRS and other Wyoming utilities to the 10th Circuit Court of Appeals shortly thereafter. During the appeal, LRS and EPA continue to negotiate in good faith a "better-than-BART" alternative that is more cost effective than EPA's NOx FIP of LRS. That process has involved additional modeling and other issues that are still in the process of being resolved.

On February 6, 2014, six days after EPA issued the NOx FIP at 79 Fed. Reg. 5032 (January 30, 2014), Wyoming submitted the "certification of Wyoming's infrastructure SIP for the 2008 ozone NAAQS" that is the subject of this proposed action by EPA.

## 2.0 Reasons in Support of why EPA and Wyoming should agree to allow Wyoming to re-submit the prong 2 portion of Wyoming's February 6, 2014, 2008 ozone NAAQS infrastructure submittal before proceeding with this action.

### 2.1 NOx reductions for the Regional Haze Program in Wyoming are still being negotiated.

EPA states at 81 Fed. Reg. at 81714 that "WDEQ's submission does not provide any technical analysis demonstrating that the SIP contains adequate provisions prohibiting emissions that will interfere with maintenance of the 2008 ozone NAAQS in any other state (prong 2)." This is unfair after-the-fact reasoning.

At the time of Wyoming's 2008 ozone NAAQS infrastructure submittal on February 6, 2014, EPA's FIP had just been released 6 days before. The relevant NOx reductions were still in the process of being implemented under the early-action installation of NOx controls that LRS and other utilities had agreed to as part of Wyoming's Regional Haze NOx SIP. Those additional NOx FIP reductions are still under appeal before the 10th Circuit Court of Appeals, some of which are subject to confidential settlement negotiations between LRS and EPA.

Therefore, from February 2014 to now, doing a "technical analysis demonstrating that the SIP contains adequate provisions prohibiting emissions that will interfere with maintenance of the 2008 ozone NAAQS in any other state (prong 2)" makes no sense until the NOx emissions are more certain based on the outcome of the anticipated potential settlement for LRS and the resolution of the other parts of the appeal to the 10th Circuit Court of Appeals.

Thus, Basin Electric suggests that EPA and Wyoming enter into an agreement to allow Wyoming to re-examine and re-submit the prong 2 portion of Wyoming's February 6, 2014, 2008 ozone NAAQS infrastructure submittal after the resolution of the appeal of EPA's FIP, including any settlements.[7]

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[6] "Approval, Disapproval and Promulgation of Implementation Plans; State of Wyoming; Regional Haze State Implementation Plan; Federal Implementation Plan for Regional Haze," 79 Fed. Reg. 5032 (January 30, 2014).
[7] The term "reasonable progress" is defined by the factors listed in CAA § 169A(g)(1), 42 U.S.C. § 7491(g)(1).

**2.2 Wyoming should be given a fair opportunity to evaluate EPA's CSAPR Update Modeling.**

Wyoming should be given an opportunity to review the recently-finalized CSAPR Update modeling EPA uses to project more than a 1% impact at receptors in Douglas County, Colorado to determine whether it is an accurate and appropriate tool to use in Wyoming or the west.

On February 1, 2016, West Associates submitted public comment in the CSAPR Update for the 2008 Ozone NAAQS providing several concerns about the use of the CSAPR modeling for Western states. Basin Electric supports these concerns and has attached a copy of the West Associates letter for your review.

EPA's proposed disapproval of Wyoming's prong 2 provisions for ozone is based on the CSAPR update modeling that was released as a final rule on October 26, 2016. Wyoming has had little to no opportunity to assess the factors of this analysis, or understand their application in Wyoming. *See* "Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS," 81 Fed. Reg. 74504 (October 26, 2016). As EPA appropriately notes in this proposed rulemaking[8] and in the CSAPR Update rule,[9] the CSAPR modeling is conducted specifically for Eastern, not Western States. Also, in this proposed action, EPA notes that there are different factors affecting modeling and modeling results that should be considered in the Western States, some of which are "geographically specific,"[10] such as broad expanses of public land, high altitude settings, international transport and elevated background ozone concentrations that can comprise a significant portion of ambient concentrations, especially on high ozone days in the Western United States.

It is unreasonable to disapprove the prong 2 provisions for the Wyoming interstate transport ozone SIP submitted nearly three years ago based on a recently finalized modeling analysis, without considering the circumstances or providing Wyoming an opportunity analyze the information and supplement the administrative record.

**2.3 Wyoming should be given an opportunity to evaluate the appropriateness of using the CSAPR model as a screening tool to determine the impacts of interstate transport of NOx and whether those emissions "significantly contribute to nonattainment of the NAAQS" ozone levels in Colorado and other neighboring States before the disapproval is issued.**

EPA recognizes in this proposed action that differences exist between Eastern and Western States where it says at 81 Fed. Reg. at 81715:

> As to western states, the EPA noted in the CSAPR Update that there may be geographically specific factors to consider in evaluating interstate transport, and given the near-term 2017 implementation timeframe, the EPA focused the final CSAPR Update on eastern states. *See* CSAPR Update at 81 FR 74523. Consistent with our statements in the CSAPR Update, the EPA intends to address western states, like Wyoming, on a case-by-case basis.

[8] 81 Fed. Reg. at 81715.
[9] 81 Fed. Reg. at 74523.
[10] 81 Fed. Reg. at 81715.

> The EPA's air quality modeling as updated for the final CSAPR Update projects that for the Western U.S. (outside of California), there are no nonattainment receptors and only three maintenance receptors located in the Denver, Colorado area. Wyoming emissions are projected to contribute above one percent of the NAAQS at one of these receptors (the "Douglas County maintenance receptor"; see Table 1, below). The modeling also shows that multiple upwind states would collectively contribute to the projected Douglas County maintenance receptor in Colorado. The EPA found that the contribution to ozone concentrations from all states upwind of the Douglas County maintenance receptor in Colorado is about 9.7 percent. [Footnote 8] Thus, the collective contribution of emissions from upwind states represents a large portion of the ozone concentrations at the projected Douglas County maintenance receptor in Colorado.

According to the CSAPR Update modeling, in addition to Colorado, 18 other "upwind" States contribute to the ozone levels at the Douglas County ambient air maintenance monitor. And by far (approximately half) of the ozone measured at the monitor is from the "Initial & Boundary" – also referred to as "background" – ozone levels. The contribution in parts per billion (ppb), from largest to smallest, from each identified contributor according to the modeling is: Initial & Boundary a/k/a background – 36.59; Colorado – 26.10; Biological – 4.35; Utah – 1.63; California – 1.18; Wyoming – 1.18; Fires - .56; Nebraska - .53; Iowa - .51; Nevada - .50; Arizona - .39; Canada & Mexico - .33; Texas - .32; Idaho - .24; Tribal - .23; Oklahoma - .14; New Mexico - .13; Oregon - .12; Offshore - .07; South Dakota - .05; North Dakota - .05; Washington - .04; Montana - .03; Missouri - .01; and Louisiana - .01.

EPA recently proposed to approve Nevada's SIP based on facts nearly identical facts to this proposed action. *See* 81 Fed. Reg. 87857, 87859 (December 6, 2016).

Either the Wyoming ozone transport SIP should be approved as it is proposed to be for Nevada, or EPA should allow Wyoming to re-examine and re-submit the prong 2 portion of Wyoming's February 6, 2014, 2008 ozone NAAQS infrastructure submittal before moving forward with this proposed action.

Thank you for your consideration of our comments. If you have any questions or require additional information, please contact Mark Foss or Mike Paul at (701) 223-0441.

Sincerely,

Mark D. Foss
Senior Vice President & General Counsel

mdf/ds
enclosure

WEST ASSOCIATES

February 1, 2016

Submitted to Federal eRulemaking Portal - http://www.regulations.gov **Docket ID No. EPA-HQ-OAR-2015-0500**

U.S. Environmental Protection Agency
EPA Docket Center
Mail Code 28221T
Attention: Docket ID No. EPA-HQ-OAR-2015-0500,
1200 Pennsylvania Avenue, NW.
Washington, DC 20460

**Re: Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS**

To Whom It Concerns:

Western Energy Supply and Transmission Associates (WEST) appreciates this opportunity to comment on the United States Environmental Protection Agency's (EPA) proposed Cross-State Air Pollution Rule (CSAPR) Update for the 2008 Ozone NAAQS. WEST is a coalition of 11 cooperative, public and investor-owned electric utilities[1] operating 40% of the fossil fueled generating capacity and producing 30% of the electricity in 11 western states, serving over 214,000 GWHs to almost 8.6 million customers.

The proposed rule requires 23 states in the eastern U.S. to reduce interstate emission transport that significantly contributes to nonattainment, or interferes with maintenance, of the 2008 ozone NAAQS by reducing their ozone season electric generating unit (EGU) NOX emissions in 2017 and future years. The EPA is proposing to update CSAPR to address interstate emission transport with respect to the 2008 ozone NAAQS of certain states' ozone-season nitrogen oxide (NOx) emissions budgets established by CSAPR. This proposal also updates the status of certain states' outstanding interstate ozone transport obligations with respect to the 1997 ozone NAAQS, for which CSAPR provided a partial remedy.[2]

This proposal does not apply to 11 contiguous states in the western U.S. However, EPA requests comment on whether it should. In framing the issue, EPA states the following:

[1] WEST members include Arizona Electric Power Cooperative, Arizona Public Service, Basin Electric Power

[2] 80 Fed. Reg. 75706 (December 3, 2015)

> *"CSAPR and previous federal transport rules, such as the NOX SIP Call and the Clean Air Interstate Rule (CAIR) ... addressed collective contributions of ozone pollution from states in the eastern U.S. These rules did not address contributions in the 11 western contiguous United States. There may be additional criteria to evaluate regarding collective contribution of transported air pollution in the West, such as those raised in EPA-state meetings to discuss approaches for determining how emissions in upwind states impact air quality in downwind states. Given that the near-term 2017 implementation timeframe constrains the opportunity to conduct evaluations of additional criteria, the EPA proposes to focus this rulemaking on eastern states. This focus would not relieve western states of obligations to address interstate transport under the Act. The EPA and western states, working together, would continue to evaluate interstate transport on a case-by-case basis. While the EPA proposes to focus this rulemaking on eastern states, we seek comment on whether to include western states in this rule."*[3]

EPA expands on this later in the proposal stating, "The EPA would also continue to engage with western states on air quality modeling analyses and the implications of those analyses for interstate transport."[4]

***WEST agrees with EPA that the western states should not be included in this rule***, but that EPA and western states should continue working together to evaluate the complex nature of interstate transport in the West and to address concerns on a case-by-case basis where they exist. There are several reasons for our position:

First, notwithstanding EPA's assertion that its air quality modeling supporting this proposed rule includes data for the western states that indicate a relationship between upwind sources and downwind receptors, WEST believes this data is incomplete and otherwise insufficient for purposes of supporting the inclusion of western states in this rulemaking.

Second, historically, ozone nonattainment strategies have been focused on solving urban ozone exceedances that can be influenced by several local factors and transported air pollution from EGUs in neighboring states. Some western states have been addressing these kinds of challenge for several years. Yet, overall, ozone in western states does not present the persistent regional challenge with exceedances as it does in the east, and ozone presents different technical challenges. The Western States Air Resources Council (WESTAR) has commented on the challenges facing western states:

> *"There are significant uncertainties about the origin, magnitude, frequency, duration and geographic distribution of ozone in the west. Transported background ozone or the precursor pollutants that cause ozone may originate in another state, in Mexico, Canada, or Asia. It may be transported down from the stratosphere. It may be the*

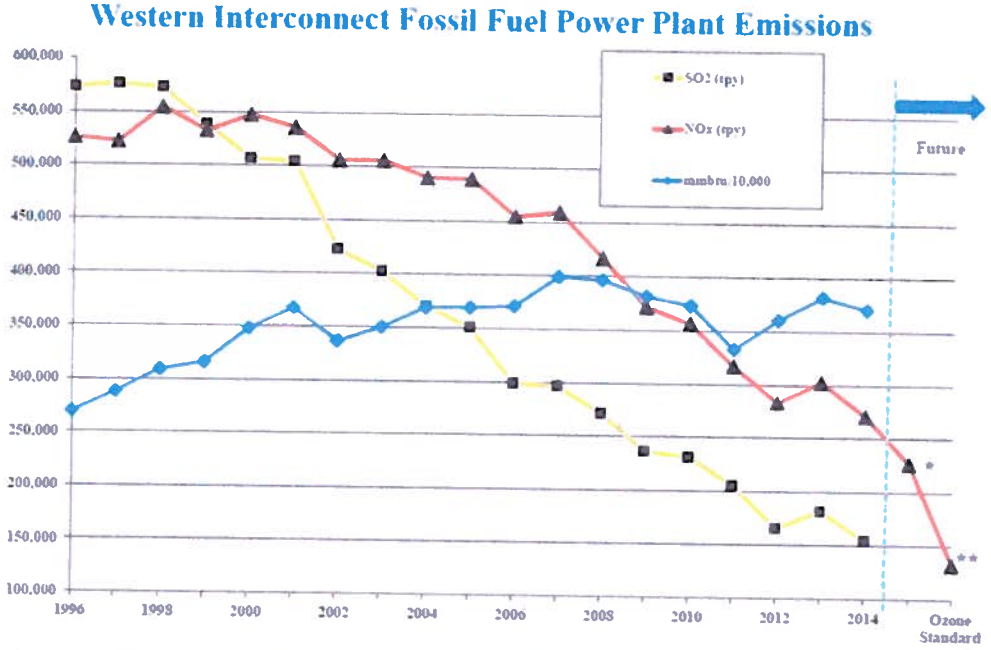
[3] Ibid. at 75708 - 75709
[4] Ibid. at 75715 - 75716

> *product of wildfires. Characterizing multiple natural events (wildfire, stratospheric intrusions), occurring with varying intensities, and sometimes overlapping over space and time will require resources beyond the states' limited means. Implementing a more stringent ozone standard in the west will require a much better understanding of the role of background and transported ozone ... "*[5].

Therefore, WEST agrees with EPA that western transport is complicated by a number of factors and that "there may be additional criteria to evaluate regarding transported air pollution in the West."

Third, an approach that relies on a collective, regional contribution from EGUs will not address the varied and complex circumstances affecting western ozone exceedances. Furthermore, as illustrated in Figure 1 below, NOx emissions from power plant sources in the Western Interconnect have declined continuously and significantly since 2000, and are likely to further decline as regional haze and Clean Power Plan strategies are implemented.

**Figure 1.** [6]




1996 through 2014 data from EPA data for fossil fuel-fired electrical generating units in the 11-state Western Interconnect
* Additional NOx reductions estimate - BART controls from Regional Haze baseline planning
** Further NOx reductions estimate from applying maximum post-combustion controls to all remaining units

As WESTAR has observed,

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[5] Letter from Western States Air Resources (WESTAR) Council to EPA (Docket ID No. OAR-HQ-OAR-2008-0699), March 16, 2015, at p. 4

[6] Presentation by Tom Moore, "Western Regional Technical Analysis for Ozone Standard Planning, WESTAR," San Francisco (April 9, 2015) at slide 4.

> *"Making the right choices about how to improve air quality in ozone nonattainment areas will depend on how well we understand the science, and our understanding of the science needs to improve. Given the absence of industrial development in numerous areas of the intermountain west, nonattainment area controls simply will not work to achieve attainment. Neither will interstate contribution reductions be sufficient in many areas to reduce ozone to levels below the proposed standard.*[7]

Finally, western regulators have identified several needs for improvements in modeling and analysis that will be required to address the varied and complex challenges facing western states with respect to urban and rural ozone exceedances, including but not limited to [8]:

- Ozone NAAQS planning–requires photochemical modeling for State Implementation Plan (SIP) attainment demonstrations for nonattainment areas.
- Ozone transport SIPs –photochemical source apportionment modeling can be used to quantify U.S. Ozone transport between states and jurisdictions.
- Identification of Ozone exceptional events caused by stratospheric intrusion and wildfires –requires observations & data analysis, supplemented with global/regional scale photochemical models and regression models.
- Identification of international transport of Ozone for §179B demonstrations: requires nested global and regional scale photochemical modeling to evaluate international transport of Ozone.
- Identification of §182 Rural Transport Areas –combination of data analysis and photochemical modeling.

Regional modeling of U.S. sources for air quality planning, to identify sources and assess controls for contributing sources, will be needed within the West.

WEST appreciates the fact that states remain obligated under the Clean Air Act to address interstate transport in their SIPs. However, WEST does not believe imposing a new regulatory framework in the west that was developed to address realities prevalent in the east is appropriate. Recent evidence strongly suggests that diverse on- and offshore contributors cause interstate transport in the west. If strategies are genuinely needed to address maintenance and limited nonattainment concerns due to interstate transport in the western states, these will need to be based on improved modeling and analysis.

Therefore, we urge EPA to defer inclusion of western states in this proposal, and to continue working with western states in developing improved analytical tools so that appropriate strategies can be developed for our unique circumstances.

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[7] WESTAR Letter to EPA at p. 2
[8] Moore Presentation at Slide 19

Thank you for your consideration of WEST's comments on this matter. If you have any questions, please contact me at 701-557-5652 or by email at LWitham@bepc.com.

Sincerely,

/s

Lyle Witham
President of the Board
WEST Associates

**UNITED STATES COURT OF APPEALS**
**FOR THE TENTH CIRCUIT**
**OFFICE OF THE CLERK**
Byron White United States Courthouse
1823 Stout Street
Denver, Colorado 80257
(303) 844-3157

Elisabeth A. Shumaker
Clerk of Court

Chris Wolpert
Chief Deputy Clerk

April 04, 2017

Mrs. Elizabeth Morrisseau
Mr. Erik Petersen
Office of the Attorney General for the State of Wyoming
2320 State Capitol
Cheyenne, WY 82002

**RE: 17-9514, State of Wyoming v. EPA, et al**
Dist/Ag docket: EPA-R08-OAR-2016-0521

Dear Counsel:

The court has received and docketed your petition for review. Please note your case number above. Copies of the Tenth Circuit Rules, effective January 1, 2017, and the Federal Rules of Appellate Procedure, effective December 1, 2016, may be obtained by contacting this office or visiting our website at http://www.ca10.uscourts.gov. In addition, please note all counsel are required to file pleadings via the court's Electronic Case Filing (ECF) system. You will find information regarding registering for and using ECF on the court's website. We invite you to contact us with any questions you may have about our operating procedures. Please note that all court forms are now available on the court's web site.

Please note effective December 1, 2016 multiple important changes to the Federal Rules of Appellate Procedure took effect. The changes include new word length requirements for briefs and amendment of the "three-day service" rule. Please visit our website at http://www.ca10.uscourts.gov to familiarize yourself with these changes.

We have served the petition for review on the respondent agency via electronic notice using the court's ECF system. Petitioner must serve a copy of the petition for review on all parties, other than the respondent, who participated in the proceedings before the agency.

Attorneys must complete and file an entry of appearance form within 14 days of the date of this letter. *See* 10th Cir. R. 46.1(A). Pro se parties must complete and file the form within thirty days of the date of this letter. An attorney who fails to enter an appearance within that time frame will be removed from the service list for this case, and there may

be other ramifications under the rules. If a respondent does not wish to participate in the appeal, a notice of non-participation should be filed via ECF as soon as possible. The notice should also indicate whether counsel wishes to continue receiving notice or service of orders issued in the case.

In addition, petitioner must complete and file a docketing statement within 14 days of the date of this letter. *See* 10th Cir. R. 15.1.

The respondent agency shall file the record, or a certified list in lieu of the record, within 40 days after service of the petition for review. *See* Fed. R. App. P. 17. If a certified list is filed, the entire record, or the parts the parties may designate, must be filed on or before the deadline set for filing the respondent's brief. *See* 10th Cir. R. 17.1.

Petitioner's opening brief must be filed within 40 days of the date on which the certified list or record is filed. *See* 10th Cir. R. 31.1(B). Subsequent briefs must be filed as required by Fed. R. App. P. 31(a). Motions for extension of time to file briefs must comply with 10th Cir. R. 27.1 and 27.5. These motions are not favored.

Briefs must satisfy all requirements of the Federal Rules of Appellate Procedure and Tenth Circuit Rules with respect to form and content. *See* specifically Fed. R. App. P. 28 and 32 and 10th Cir. R. 28.1, 28.2 and 32, as well as 31.3 when applicable. Seven hard copies of briefs must be provided to the court within two days of filing via the court's Electronic Case Filing system. See 10th Cir. R. 31.5 and the court's CM/ECF User's Manual. Counsel are encouraged to utilize the court's Briefing & Appendix checklist when compiling their briefs.

This matter will be heard on a record that the agency provides. *See* Fed. R. App. P. 17(a) and 10th Cir. R. 17.3. As a result, the parties need not file an appendix. If, however, any party wishes to file a separate appendix it should file a motion seeking that relief.

Please contact this office if you have questions.

Sincerely,

Elisabeth A. Shumaker

Elisabeth A. Shumaker
Clerk of the Court

cc: David Aiken Carson
Correspondence Control Unit
Scott Pruitt

EAS/na