

**FOR PUBLICATION**  
**UNITED STATES COURT OF APPEALS**  
**FOR THE NINTH CIRCUIT**

SIERRA CLUB; MEDICAL ADVOCATES  
FOR HEALTHY AIR,

*Petitioners,*

v.

UNITED STATES ENVIRONMENTAL  
PROTECTION AGENCY; LISA JACKSON,  
Administrator, U.S. Environmental  
Protection Agency; JARED  
BLUMENFELD, Regional  
Administrator, Region IX, U.S.  
Environmental Protection Agency,

*Respondents,*

SAN JOAQUIN VALLEY UNIFIED AIR  
POLLUTION CONTROL DISTRICT,

*Respondent-Intervenor.*

No. 10-71457

COMMITTEE FOR A BETTER ARVIN, a  
California nonprofit corporation;  
COMITE RESIDENTES ORGANIZADOS  
AL SERVICIO DEL AMBIENTE SANO,  
an unincorporated association;  
ASSOCIATION OF IRRITATED  
RESIDENTS, an unincorporated  
association,

*Petitioners,*

v.

UNITED STATES ENVIRONMENTAL  
PROTECTION AGENCY; LISA JACKSON,  
Administrator, U.S. Environmental  
Protection Agency; JARED  
BLUMENFELD, Regional  
Administrator, Region IX, U.S.  
Environmental Protection Agency,

*Respondents,*

SAN JOAQUIN VALLEY UNIFIED AIR  
POLLUTION CONTROL DISTRICT,

*Respondent-Intervenor.*

No. 10-71458

OPINION

On Petition for Review of an Order of the  
United States Environmental Protection Agency

Argued and Submitted  
November 16, 2011—San Francisco, California

Filed January 20, 2012

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Before: Sidney R. Thomas, Ronald M. Gould, and  
Jay S. Bybee, Circuit Judges.

Opinion by Judge Gould

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**COUNSEL**

Paul R. Cort and Deborah S. Reames, Earthjustice for petitioners Sierra Club and Medical Advocates for Healthy Air;

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Sofia L. Parino and Brent Newell, Center on Race, Poverty & the Environment for Petitioners Committee for a Better Arvin, Association of Irrigated Residents and Comite Residentes Organizados al Servicio del Ambiente Sano.

Ignacia S. Moreno, John C. Cruden, Monica Derbes Gibson, Jefferson Wehling, Jeanhee Hong, and Jan M. Tierney for respondent United States Environmental Protection Agency.

Catherine T. Redmond for respondent-intervenor San Joaquin Valley Unified Air Pollution Control District.

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### OPINION

GOULD, Circuit Judge:

Sierra Club and several environmental groups, (collectively, “Petitioners”), petition for review of the United States Environmental Protection Agency’s (“EPA”) approval of the 2004 State Implementation Plan (“2004 SIP”) for the San Joaquin Valley’s nonattainment area for the one-hour ozone National Ambient Air Quality Standard (“NAAQS”). Petitioners contend that 1) EPA acted arbitrarily and capriciously, in violation of the Administrative Procedures Act (“APA”), by approving the 2004 SIP knowing that the emissions inventory data on which the plan relied were, as an actual matter, outdated and inaccurate by the time EPA approved the plan in 2010; 2) EPA violated the Clean Air Act (“CAA”) by approving the 2004 SIP because the emissions inventory data on which it relied were outdated and inaccurate within the meaning of the statute; 3) EPA violated the CAA by approving the 2004 SIP without the inclusion of the State-adopted regulations on which the plan relied; and 4) EPA violated the CAA by approving the 2004 SIP knowing that attainment of the one-hour ozone NAAQS by the 2010 deadline was impossible. We have jurisdiction to review EPA’s action pursuant

to 42 U.S.C. § 7607(b)(1), section 307(b)(1) of the CAA, and we hold that EPA's 2010 approval of the 2004 SIP, which was based on data current only as of 2004, was arbitrary and capricious. Deciding that issue, we need reach no other.

## I

“The CAA makes the States and the Federal Government partners in the struggle against air pollution.” *Jensen Family Farms, Inc. v. Monterey Bay Unified Air Pollution Control Dist.*, 644 F.3d 934, 938 (9th Cir. 2011) (quoting *Gen. Motors Corp. v. United States*, 496 U.S. 530, 532 (1990) (internal quotation marks omitted)). The CAA protects the nation's air quality by authorizing EPA to establish NAAQS that apply to air pollutants that are dangerous to the general health of the public. 42 U.S.C. § 7409. EPA designates areas that fail to attain NAAQS as nonattainment areas. *Id.* §§ 7407(d)(1). Based on the severity of the pollution problem, nonattainment areas are further divided into five categories: marginal, moderate, serious, severe, and extreme. *Id.* § 7511. Central California's San Joaquin Valley (“the Valley”)<sup>1</sup> has been designated as an extreme nonattainment area for the pollutant ozone.<sup>2</sup>

EPA first established NAAQS for ozone in 1979. This air quality standard limited the acceptable level of ozone in the ambient air to a maximum of 0.12 parts per million (“ppm”) as measured by monitored levels averaged over one hour

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<sup>1</sup>The Valley is made up of eight counties; San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and the valley portion of Kern. Approval and Promulgation of Implementation Plans, 74 Fed. Reg. 33,933 (July 14, 2009).

<sup>2</sup>“Ozone (O<sub>3</sub>) is a gas composed of three oxygen atoms. It is not usually emitted directly into the air, but at ground-level is created by a chemical reaction between oxides of nitrogen (NO<sub>x</sub>) and volatile organic compounds (VOC) in the presence of sunlight.” *Ground-Level Ozone*, U.S. Env'tl. Prot. Agency, <http://www.epa.gov/glo/> (last updated Sept. 23, 2011).

(“the 1-hour ozone standard”). 74 Fed. Reg. at 33,934. In 1997, EPA reset that maximum to 0.08 ppm as measured by monitored levels over an eight-hour period (“the 8-hour ozone standard”). *Id.* Although the 8-hour standard replaced the 1-hour standard effective June 2005, as an “anti-backsliding” measure, EPA retained some elements of the 1-hour ozone standard for certain nonattainment areas that had yet to attain the 1-hour ozone standard at the time of its revocation. *Id.* at 33,934-35 (“As a general matter, the planning and control requirements that remain applicable following the revocation of the 1-hour ozone standard derive from CAA sections 110, 172, and 182 . . . . Under the [anti-backsliding measure, non-attainment] areas remain subject to the 1-hour requirements until they attain the 8-hour ozone standard.”) The Valley is subject to this anti-backsliding provision.

#### A. State Implementation Plans

The CAA requires the states to address nonattainment areas by developing an SIP that sets out how a nonattainment area will come into compliance with the requisite NAAQS. 42 U.S.C. §§ 7407(a), 7410. Generally, all SIPs for nonattainment areas must include, *inter alia*, (1) an emissions inventory, important for the required attainment demonstration and the related “rate of progress” (“ROP”) demonstration, that “include[s] a comprehensive, accurate, current inventory of actual emissions from all sources of the relevant pollutant or pollutants in such area”; (2) an attainment demonstration, developed from the emissions inventory, consisting of a technical analysis to predict whether the area will attain the NAAQS by the deadline and a control strategy for how the State plans to actually meet the standard;<sup>3</sup> (3) a means to mea-

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<sup>3</sup> “[A]n attainment demonstration [is] a technical analysis that through air quality modeling demonstrates that the ‘control measures’ proposed by the SIP will ensure that these nonattainment areas attain the NAAQS by the applicable deadline.” *El Comité para el Bienestar de Earlimart v. Warmerdam*, 539 F.3d 1062, 1066 (9th Cir. 2008) (quoting 42 U.S.C. § 7502(c)(1)).

sure reasonable further progress (“RFP”); (4) nonattainment area permit requirements for new or modified stationary sources; and (5) contingency measures to be implemented if the nonattainment area does not make RFP or does not attain the NAAQS by the required date. *Id.* § 7502(c). SIPs for extreme ozone nonattainment areas, such as the Valley, must include an attainment demonstration “based on photochemical grid modeling<sup>4</sup> or any other analytical method determined by the Administrator, in the Administrator’s discretion, to be at least as effective.” *Id.* § 7511a(c)(2)(A), (e).

After public notice and hearings, a state must adopt the SIP and submit it to EPA for review and approval. *Id.* § 7410(a). EPA must then “determine whether a SIP submission is complete within 60 days of receipt . . . . [A]ny plan that has not been affirmatively determined to be complete or incomplete shall become complete within 6 months by operation of law.” 74 Fed. Reg. at 33,934 (discussing 42 U.S.C. § 7410(k)(1)). EPA must then act on the SIP, either approving it in whole or disapproving it in part or in whole. 42 U.S.C. § 7410(k)(3). Once approved by EPA, an “SIP bec[o]me[s] *federal law* . . . ,

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<sup>4</sup>As the Second Circuit stated:

Photochemical grid modeling is a sophisticated computerized method of predicting what ozone levels will be in the future. The model creates a three-dimensional grid over the entire control region and analyzes how emissions from various sources combine in the atmosphere to create pollutants such as ozone. Photochemical reactions can produce ozone when oxides of nitrogen (NOx) and volatile organic compounds (VOCs) are released into the air and combine with sunlight. *See* 40 C.F.R. pt. 58 app. D. § 2.5. Ozone production is affected by a variety of factors such as temperature, wind, and emissions levels. By manipulating other variables like meteorology, terrain, predicted population growth, and the effect of planned emissions reductions, the model attempts to predict ambient ozone concentrations on the applicable attainment date. *See 1000 Friends of Maryland v. Browner*, 265 F.3d 216, 220-21 n.4 (4th Cir. 2001).

*Envtl. Def. v. EPA*, 369 F.3d 193, 197-98 (2nd Cir. 2004).

and c[annot] be changed unless and until EPA approve[s] any change.” *Safe Air for Everyone v. EPA*, 488 F.3d 1088, 1096 (9th Cir. 2007). The CAA provides a private right of action for citizens to enforce an SIP by bringing a civil action in federal district court. 42 U.S.C. § 7604.

### **B. Mobile Source Emissions Regulation**

The CAA also regulates mobile source emissions.<sup>5</sup> “[T]he regulation of mobile source emissions is a federal responsibility, [and] Congress has expressly preempted states from setting emissions standards for mobile sources.” *Jensen Family Farms*, 644 F.3d at 938 (citing 42 U.S.C. § 7543(a)). California, however, is a “notable exception to this general rule,” and the CAA permits EPA to authorize California “to set its own mobile source emissions standards so long as it obtains EPA approval.” *Id.* at 938 n.3 (citing 42 U.S.C. § 7543(b) (motor vehicles); *id.* § 7543(e)(2) (nonroad sources)); *see also Nat’l Ass’n of Home Builders v. San Joaquin Valley Unified Air Pollution Control Dist.*, 627 F.3d 730, 733 (9th Cir. 2010) (“[T]he [CAA] gives the states the job of regulating stationary sources of pollution, but the EPA, and with the EPA’s permission California, are responsible for regulating emissions from motor vehicles and other mobile sources.”). California thus relies on its own mobile source standards in the development of its SIPs.

### **C. The San Joaquin Valley 2004 SIP**

In 1991, the Valley was classified as a “serious” nonattainment area under the 1-hour ozone standard. Designation of Areas for Air Quality Purposes, 56 Fed. Reg. 56,694, 56,699

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<sup>5</sup>“ ‘Mobile sources’ is a term used to describe a wide variety of vehicles, engines, and equipment that generate air pollution and that move, or can be moved, from place to place.” *What Are Mobile Sources?*, U.S. Env’tl. Prot. Agency, <http://www.epa.gov/otaq/inventory/overview/examples.htm> (last updated Jan. 3, 2012).

(Nov. 6, 1991). The State timely submitted its SIP to EPA in 1994, and in January 1997, EPA approved the plan, which set November 1999 as the attainment deadline. Approval and Promulgation of Implementation Plans; California—Ozone, 62 Fed. Reg. 1150 (Jan. 8, 1997).

In 2001, EPA determined that the Valley did not attain the 1-hour ozone standard by the deadline. CAA Reclassification, San Joaquin Valley Nonattainment Area, 66 Fed. Reg. 56,476 (Nov. 8, 2001). Consistent with the CAA, EPA automatically reclassified the Valley as a “severe” nonattainment area, set May 31, 2002 as the deadline by which the State had to submit appropriate revisions to the SIP, and set November 15, 2002 as the Valley’s new attainment deadline. *Id.* at 56,481; *see also* 42 U.S.C. § 7511(a)(1), (b)(2).

The State did not meet its May 2002 deadline for submission of the SIP revision. Findings of Failure to Submit SIP Revisions for 1-Hour Standard, 67 Fed. Reg. 61,784 (Oct. 2, 2002). Under the CAA, EPA then issued a finding that the State did not meet its obligation, which “trigger[ed] the 18-month clock for mandatory application of sanctions and 2-year clock for a Federal implementation plan (FIP) under the [CAA].” *Id.*; *see also* 42 U.S.C. § 7509; 40 C.F.R. § 52.31. The State effectively gained an 18-month extension in which it was required to revise the SIP before EPA would impose sanctions. 67 Fed. Reg. 61,784-85.

Once more, the State did not meet this deadline. To avoid sanctions, the State requested that EPA reclassify the Valley as an “extreme” one-hour ozone nonattainment area. CAA Reclassification, 69 Fed. Reg. 20,550 (Apr. 16, 2004); *see also* 42 U.S.C. § 7511(a)(5). This voluntary reclassification gave the State extra time to submit its revised SIP by resetting the State’s submission deadline for a revised SIP consistent with the Valley’s reclassification as an extreme ozone nonattainment area. 69 Fed. Reg. at 20,550. The new deadline was November 15, 2004, and the new attainment deadline was

November 15, 2010. *Id.* The State submitted the 2004 SIP for EPA approval in November 2004. 74 Fed. Reg. at 33,933-34.

In 2003, the State adopted the “State and Federal Strategy for the California State Implementation Plan,” (“the State Strategy”), which set forth California’s regulatory agenda to reduce ozone and specific commitments to reduce emissions in the Valley. *Id.* at 33,934. The State Strategy “includes defined statewide control measures that were to be reflected in future SIPs and provisions specific to air quality plans for the San Joaquin Valley.” *Id.* The 2004 SIP relied on the State Strategy’s mobile source emissions data, developed by the State, for its attainment demonstration and rate of progress. *Id.*

#### **D. EPA Action on the 2004 SIP**

The State amended the 2004 SIP in October 2005 to substitute into the plan a new control strategy and to synchronize the rulemaking schedule with that in the Valley’s plan for the NAAQS for particulate matter less than or equal to 10 micrometers in diameter. *Id.* The State submitted these amendments to the plan to EPA in March 2006. *Id.* In September 2008, the State submitted “Clarifications Regarding the 2004 Extreme Ozone Attainment Demonstration Plan” (“2008 Clarifications”), which updated information on certain control programs, ROP demonstration, and contingency measures in the 2004 SIP. *Id.* By operation of law, the original 2004 SIP was deemed complete on May 15, 2005, the subsequent amendments on September 6, 2006, and the 2008 Clarifications on September 23, 2008. *Id.*; *see also* 42 U.S.C. § 7410(k)(1)(B). Together, the SIP as submitted in 2004, the 2006 Amendments, and the 2008 Clarifications constitute the 2004 SIP, now at issue.

In October 2008, EPA issued a proposed rule to approve the 2004 SIP and sought public comment. Approval and Promulgation of Implementation Plans, 73 Fed. Reg. 61,381

(Oct. 16, 2008). After comments were received, EPA withdrew its proposed rule approving the 2004 SIP, and instead proposed to approve the 2004 SIP in part, disapproving only the attainment contingency measures. 74 Fed. Reg. at 33,947. In response, the State submitted supplemental technical information, and EPA withdrew its proposed disapproval and proposed to approve the attainment contingency measures, and thus the 2004 SIP in full, in October 2009. Approval and Promulgation of Implementation Plans, 74 Fed. Reg. 50,936 (Oct. 2, 2009). EPA finally approved the 2004 SIP on March 8, 2010, six years after its original submission and just eight months before the plan's November 15, 2010 attainment deadline. Approval and Promulgation of Implementation Plans, 75 Fed. Reg. 10,420 (Mar. 8, 2010).

## II

“We have jurisdiction to review EPA’s approval of the [2004 SIP] under 42 U.S.C. § 7607(b)(1).” *Vigil v. Leavitt*, 381 F.3d 826, 833 (9th Cir. 2004). Because the CAA “does not specify a standard of review, . . . we apply the general standard of review for agency actions set forth in the [APA], 5 U.S.C. §§ 701-06.” *Latino Issues Forum v. EPA*, 558 F.3d 936, 941 (9th Cir. 2009) (citing *Vigil*, 381 F.3d at 833)). “Under the APA, we consider whether the EPA’s action was ‘arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.’ ” *Id.* (quoting 5 U.S.C. § 706(2)(A)). “This standard requires the EPA to ‘articulate[ ] a rational connection between the facts found and the choice made.’ ” *Id.* (quoting *Ariz. Cattle Growers’ Ass’n v. U.S. Fish & Wildlife*, 273 F.3d 1229, 1236 (9th Cir. 2001)). “[We] review the record to ensure that agency decisions are founded on a reasoned evaluation of the relevant factors, and may not rubber-stamp . . . administrative decisions that [are] inconsistent with a statutory mandate or that frustrate the congressional policy underlying a statute . . . .” *Id.* (quoting *Friends of Yosemite Valley v. Norton*, 348 F.3d 789, 793 (9th Cir. 2003)).

*Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837 (1984) generally sets forth the framework by which we review an agency’s interpretation of a statute. *Id.* at 842-44. Under this framework at the first step we determine “whether Congress has directly spoken to the precise question at issue. If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress.” *Id.* at 842-43. “[I]f the statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency’s answer is based on a permissible construction of the statute.” *Id.* at 843.

Not all agency statutory interpretations are entitled to *Chevron* deference, however. Rather, *Chevron* deference is appropriate where “the agency can demonstrate that it has the general power to ‘make rules carrying the force of law’ and that the challenged action was taken ‘in the exercise of that authority.’” *The Wilderness Soc’y v. U.S. Fish & Wildlife Serv.*, 353 F.3d 1051, 1067 (9th Cir. 2003) (quoting *United States v. Mead Corp.*, 533 U.S. 218, 226-27 (2001)); see also *Vigil*, 381 F.3d at 834 (finding that *Chevron* deference did not apply to EPA statutory interpretations where “EPA has not, in fact, exercised its general rulemaking authority to define these terms”). “A very good indicator of delegation meriting *Chevron* treatment [is] express congressional authorizations to engage in the process of rulemaking or adjudication that produces regulations or rulings for which deference is claimed.” *Mead*, 533 U.S. at 229.

[1] With respect to the CAA, “Congress has given EPA general rulemaking authority, 42 U.S.C. § 7601(a)(1), which, when exercised, requires our deference in accordance with *Chevron*.” *Vigil*, 381 F.3d at 834. But EPA has not exercised its authority to make rules carrying the force of law to fill in the meaning of “current” and “accurate,” the terms in the CAA we now ponder. Instead, EPA’s interpretation of the CAA in its material terms here is largely based on a policy

guidance document issued by the Office of Air Quality Planning and Standards and the Office of Transportation and Air Quality in 2002 along with the agency's past practices. See Memorandum from John S. Seitz, Office of Air Quality Planning & Standards, and Margo Tsirigotis Oge, Office of Transp. & Air Quality, Policy Guidance on the Use of MOBILE6 for SIP Development and Transportation Conformity (Jan. 18, 2002), available at <http://www.epa.gov/otaq/models/mobile6/m6policy.pdf> ("Seitz Memo"). " 'Interpretations such as those . . . contained in policy statements, agency manuals, and enforcement guidelines, all of which lack the force of law—do not warrant *Chevron*-style deference.' " *Vigil*, 381 F.3d at 835 (quoting *Christensen v. Harris Cnty.*, 529 U.S. 576, 587 (2000)). Indeed, "[t]hey are beyond the *Chevron* pale." *Mead*, 533 U.S. at 234.

"Such views, however, even if not authoritative for purposes of *Chevron*, are entitled to so-called *Skidmore* deference insofar as they 'constitute a body of experience and informed judgment to which courts and litigants may properly resort for guidance.' " *Vigil*, 381 F.3d at 835 (quoting *Skidmore v. Swift & Co.*, 323 U.S. 134, 140 (1944)). "Under *Mead* and *Skidmore*, the weight that we are to give an administrative interpretation not intended by an agency to carry the general force of law is a function of that interpretation's thoroughness, rational validity, and consistency with prior and subsequent pronouncements." *Wilderness Soc'y*, 353 F.3d at 1068 (citing *Skidmore*, 323 U.S. at 140). Moreover, "[c]ogent administrative interpretations . . . not the products of formal rulemaking . . . nevertheless warrant respect." *Vigil*, 381 F.3d at 835 (quoting *Alaska Dep't of Env'tl. Conservation v. EPA*, 540 U.S. 461, 488 (2004)).

[2] Here, the Seitz Memo was not issued by EPA under rulemaking authority, but, in promulgating the memo, EPA followed "relatively formal administrative procedure tending to foster the fairness and deliberation that should underlie a pronouncement of . . . force." *Mead*, 533 U.S. at 230. Before

its issuance, “EPA provided state, local, and tribal agencies an opportunity to comment on the draft policy guidance in the fall of 2001.” Seitz Memo at 1. To the extent that EPA relies on the Seitz Memo, along with EPA’s past practices that have not been codified through EPA’s rulemaking authority, to support its interpretation of the statute, we give limited deference to EPA’s interpretation of the statutory provisions at issue here. *See Mead*, 533 U.S. at 234 (“*Chevron* did nothing to eliminate *Skidmore*’s holding that an agency’s interpretation may merit some deference whatever its form, given the ‘specialized experience and broader investigations and information’ available to the agency and given the value of uniformity in its administrative and judicial understandings of what a national law requires.” (citations omitted) (quoting *Skidmore*, 323 U.S. at 140)).

### III

The crux of the case for us is whether EPA’s actions were arbitrary and capricious, for if so, EPA needs to conduct its process anew and other issues concerning statutory interpretation need not be reached. In assessing whether EPA’s agency action approving the SIP is arbitrary and capricious, we consider whether EPA “examine[d] the relevant data and articulate[d] a satisfactory explanation for its action including a ‘rational connection between the facts found and the choice made.’ ” *Motor Vehicle Mfrs. Ass’n of the U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (quoting *Burlington Truck Lines, Inc. v. United States*, 371 U.S. 156, 168 (1962)).

[3] Section 172(c)(3) of the CAA requires that nonattainment plans “include a comprehensive, *accurate, current* inventory of actual emissions from all sources of the relevant pollutant or pollutants in such area .” 42 U.S.C. § 7502(c)(3) (emphasis added). Petitioners contend that by the time EPA approved the 2004 SIP in 2010, the mobile source data on which the emissions inventory in the 2004 SIP relied were

neither “accurate” nor “current,” as shown by the emissions inventory data that the State submitted in connection with its 2007 SIP for the 8-hour ozone standard. Petitioners further contend that EPA’s approval of the 2004 SIP was arbitrary and capricious because, in approving the 2004 SIP, EPA did not reconcile the differences in the emissions data produced by the two models. EPA also did not explain why it chose not to consider the 2007 data in approving the 2004 SIP. We agree that the use of stale data was not adequately reconciled with the more current data.

The State based the 2004 SIP emissions inventory data on mobile source data estimated through the use of the State’s computer modeling tool released in 2002, called EMFAC2002. EMFAC2002 estimated emissions from heavy-duty diesel trucks based on where the trucks were registered. The 2007 SIP emissions inventory data were compiled using mobile source data estimated using the next generation of that computer modeling tool, EMFAC2007, released in November 2006 and approved by EPA in January 2008. Official Release of EMFAC2007 Motor Vehicle Emission Factor Model, 73 Fed. Reg. 3464, 3465-66 (Jan. 18, 2008). EMFAC2007 improved mobile source emission estimates by basing them on where the trucks were being driven, which better accounted for the amount of pollution from trucks driven in, but not necessarily registered in, the Valley. The change in computer modeling tool resulted in disparities in NO<sub>x</sub> emissions estimates between the 2004 SIP emissions inventory and the 2007 SIP emissions inventory. For example, the 2004 SIP emission inventory estimate for total Valley NO<sub>x</sub> emissions in 2008 was 429.1 tons per day, but the same estimate for 2008 rose to 597.8 tons per day in the 2007 SIP.

Although it knew of the disparities in mobile source emissions estimates between the 2004 SIP and the 2007 SIP, EPA did not address those differences or their likely impact, if any, on the validity of the 2004 SIP in its final rule approving the 2004 SIP. Instead, EPA relied on its past practice and inter-

pretation of the CAA, as stated in the Seitz Memo, in which emissions inventory data are considered “current” and “accurate” within the meaning of § 172(c)(3) as long as the data are current and accurate when the State submits an SIP to EPA for approval and not necessarily when EPA approves an SIP.<sup>6</sup> See Seitz Memo at 2.

EPA relies principally on the Seitz Memo and on the D.C. Circuit’s holding in *Sierra Club v. EPA*, 356 F.3d 296 (D.C. Cir. 2004), to support its interpretation that emissions inventory data satisfy the “accurate” and “current” requirements of the CAA as long as they are accurate and current when the SIP is submitted for EPA approval, and that no further review of the 2007 data was necessary.

The Seitz Memo, published in 2002, gives policy guidance issued to address “when to use MOBILE<sup>7</sup> in [SIP] develop-

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<sup>6</sup>As a preliminary matter, Respondent-Intervenor, San Joaquin Valley Unified Air Pollution Control District (“the District”) argues that this court cannot give relief to petitioners because the 1-hour ozone standard was supplanted by the 8-hour ozone standard, and EPA has no obligation “to take affirmative action to demonstrate attainment of the [1-hour ozone standard].” As petitioners point out, however, EPA does not similarly argue that the court may not provide a remedy here. Moreover, 40 C.F.R. §§ 51.900(f), 51.905 set forth the ongoing obligations for 1-hour ozone nonattainment areas after the adoption of the 8-hour standards. They include ROP reductions and, here, a 1-hour NAAQS ozone attainment demonstration because the State apparently has not met the other alternatives for compliance with the regulations. See 40 C.F.R. § 51.905(a)(ii); Adequacy Status of Motor Vehicle Emissions: 8-hour Ozone, 74 Fed. Reg. 4032, 4033 (Jan. 22, 2009) (stating that the Valley’s 8-hour ozone plan did not show reasonable further progress for the year 2008).

Ultimately, the State is still required to submit, and EPA to approve, a valid plan including measures relating to 1-hour NAAQS, although revoked. To that end, the 2004 SIP contained these measures, “including control measures, rate-of-progress (ROP) and attainment demonstrations, and contingency measures,” and the panel may remand the matter to EPA for action consistent with its holding. 74 Fed. Reg. at 33,934.

<sup>7</sup>“MOBILE is EPA’s highway vehicle emissions [computer modeling tool] for predicting gram-per-mile emissions of hydrocarbons (HC), car-

ment and transportation conformity determinations.” Seitz Memo at 1. In 2001, MOBILE6 supplanted MOBILE5 as the most current iteration of EPA’s federally-developed computer modeling tool for highway vehicle emissions for “state and local agencies outside of California.” *Id.* In the Seitz Memo, EPA expressed its “belie[f] that the [CAA] would not require states that have already submitted SIPs or will submit SIPs shortly after MOBILE6’s release to revise these SIPs simply because a new motor vehicle emissions model is now available.” Seitz Memo at 2. In coming to this conclusion, EPA seemed concerned that requiring States to rework previously submitted or recently approved SIPs whenever a new model becomes available would pose “an obstacle to EPA approval.” *Id.* EPA stated that, “[i]t would be unreasonable to require the States to revise [recently submitted or approved] SIPs with MOBILE6 since significant work has already occurred, and EPA intends to act on these SIPs in a timely manner.” *Id.* (emphasis added).

[4] Contrary to EPA’s argument, however, the Seitz Memo does not appear unequivocally to stand for the proposition that EPA action comports as a matter of course with § 172(c)(3) whenever EPA approves an SIP based on an old emissions computer modeling tool as long as the modeling tool was the most current and accurate at the time of SIP submission. That is because at least part of the Seitz Memo’s rationale on not requiring an updated SIP when a new computer modeling tool arrives appears to rest on the timeliness of EPA’s subsequent action on the SIP in question. *See id.* Indeed, the latter part of the statement quoted above suggests that while there is some period of time after the release of a

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bon monoxide (CO), nitrogen oxides (NOx), carbon dioxide (CO<sub>2</sub>), particulate matter (PM), and toxics from cars, trucks, and motorcycles under various conditions.” *Mobile*, Office of Planning, Env’t, & Realty, [http://www.fhwa.dot.gov/environment/air\\_quality/conformity/methodologies/mobile.cfm](http://www.fhwa.dot.gov/environment/air_quality/conformity/methodologies/mobile.cfm) (last updated July 6, 2011). The most current version is MOBILE6.2, released in 2004. *Id.*

new computer modeling tool in which the CAA does not require a finding that SIPs based on the previous version are not current and accurate, there comes a time after which reliance on outdated models and data is inconsistent with requisite guidelines for ensuring that agency action is timely and responsive to current public needs. The Seitz Memo itself further supports this perspective as it states the following:

EPA also believes that the legal basis for approving a MOBILE5-based SIP is less clear the longer that MOBILE6 is in place and available for use. Since SIPs must be based on applicable models and data inputs, *it could be difficult for EPA to approve a SIP developed with MOBILE5 significantly after MOBILE6 becomes available.*

*Id.* at 2-3 (emphasis added). It appears then that EPA, when it promulgated its guidance, contemplated, not surprisingly, that relying on an outdated computer modeling tool after a significant amount of time has passed since the introduction of a newer model would pose a problem. Here, EMFAC2007 was released to the public in November 2006, submitted to EPA for approval in April 2007, and approved by EPA in January 2008. *See* 73 Fed. Reg. at 3465. EPA, however, did not approve the 2004 SIP until 2010, more than 3 years after the release of EMFAC2007. By March of 2010, EPA knew that a new computer modeling tool was available and had access to data compiled through the use of the more current tool. That data told a different story than that told by the earlier data about projected emissions of NO<sub>x</sub> from mobile sources in the Valley, which undermined the accuracy and currency of the 2004 SIP emissions inventory data. EPA, in its final rule approving the 2004 SIP, however, did not analyze this new data or explain why it chose not to analyze the data in considering the 2004 SIP. EPA did not “cogently explain why it . . . exercised its discretion” not to consider the new and available data. *State Farm*, 463 U.S. at 48. Instead, EPA merely repeated its mantra that, despite availability of the

2007 emissions inventory data three years before the 2010 approval of the 2004 SIP, EPA had no duty under the CAA to consider new data so long as the data relied upon was current and accurate when submitted. But we think the agency in the public's interest should have considered that six years had passed between the State's submission of the 2004 SIP and its approval by the agency.

EPA also relies on the D.C. Circuit's holding in *Sierra Club* to support its contention that reliance on the currency and accuracy of the data at the time of submission renders its approval of the 2004 SIP valid. In *Sierra Club*, the D.C. Circuit considered, *inter alia*, the significance of EPA's introduction of MOBILE6 on EPA's approval of the D.C.-area's 1-hour ozone SIPs, which were based on emissions data compiled using MOBILE5. 356 F.3d at 308. The ROP plans for the years 1996-1999, based on MOBILE5, were originally submitted for EPA approval in 1999 and then resubmitted as part of the D.C.-area SIPs in February 2002, even though MOBILE6 was made available one month earlier in January 2002. EPA approved the SIPs one year later in April 2003. *Id.*

The Sierra Club argued that EPA's approval of the SIPs there was arbitrary and capricious in light of the availability of the newer modeling tool. *Id.* at 307-08. Relying on the Seitz Memo, the D.C. Circuit concluded, however, that "[t]o require states to revise completed plans every time a new model is announced would lead to significant costs and potentially endless delays in the approval processes." *Id.* at 308. Accordingly, the D.C. Circuit held that "EPA's decision to . . . accept the use of MOBILE5 . . . was neither arbitrary nor capricious." *Id.*

Contrary to EPA's argument, our conclusion today is not inconsistent with the D.C. Circuit's holding in *Sierra Club* because the facts here are not alike; there are marked differences between the plans' submissions and their approvals. In *Sierra Club*, the new modeling tool was available for only one

year before EPA approved the D.C.-area SIPs that were based on the previous iteration. Here, EMFAC2007 was available to the public as early as November 2006, and the 2004 SIP was not approved until more than three years later in March 2010. Thus as the Seitz Memo itself suggests, EPA stands on shaky legal ground relying on significantly outdated data, given the amount of time that EMFAC2007 was available and authorized for use before EPA approved the 2004 SIP. *See* Seitz Memo at 2-3.<sup>8</sup>

Second, in *Sierra Club*, the D.C. Circuit noted the Seitz Memo's argument that requiring a new compilation of emission data based on the new computer modeling tools would place an onerous burden on and unnecessarily prolong approval. Indeed, in that case, no new data based on MOBILE6 were available and a new study just to collect the raw data would have had to be commissioned. Here, by contrast, the State had already collected the emissions data using EMFAC2007, and had presented to EPA the 2007 SIP that relied on that updated data. There was no need for a new study to be commissioned, and the burden and expense of commissioning a new study was minimized as one had already been completed with respect to the 8-hour ozone standard 2007 SIP. Based on these factual differences then, the D.C. Circuit's opinion in *Sierra Club* does not support EPA's

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<sup>8</sup>In another example cited by EPA to support the proposition that it is EPA's policy to approve SIPs based on MOBILE5, although MOBILE6 was available for use, there was also a relatively short period of time between the plan submission and EPA approval. Specifically, in July 2001 the state of Georgia submitted a revised attainment demonstration for the 1-hour ozone nonattainment area in Atlanta which replaced the previous attainment demonstration submitted in October 1999. Approval and Promulgation of Georgia SIPs, 67 Fed. Reg. 30,574 (May 7, 2002). EPA approved the attainment demonstration effective June 2002, about 6 months after MOBILE6 was available. *Id.* This example does not speak to the Seitz Memo's own observation regarding the legality of relying on an old version of the computer modeling tool when a new version has been available for a significant amount of time.

contention that its approval of the 2004 SIP here, without consideration of the long available updated emissions inventory data, was not arbitrary or capricious.

Moreover, EPA's decision not to evaluate the EMFAC2007 data, of which EPA had actual knowledge and which could reasonably be described as relevant to the efficacy of the 2004 SIP, is also inconsistent with our holding in *Ass'n of Irrigated Residents v. EPA (A.I.R.)*, 632 F.3d 584 (9th Cir. 2011). In *A.I.R.*, we considered whether EPA's decision not to evaluate the adequacy of California's South Coast nonattainment area's previously approved 1997/1999 SIP was arbitrary and capricious after the State, upon new modeling, submitted a 2003 attainment demonstration revision that made clear that the attainment demonstration in the 1997/1999 SIP was inaccurate. 632 F.3d at 589-90. EPA ultimately disapproved the 2003 SIP revision's attainment demonstration, but took no further action to evaluate the 1997/1999 SIP's extant attainment demonstration. We held that EPA's "failure to evaluate the adequacy of the existing [1997/1999] SIP was arbitrary and capricious," because California, in its 2003 SIP revision, acknowledged that the attainment demonstration in EPA-approved 1997/1999 SIP was inaccurate. *Id.* at 590. We stated that, "[t]hrough the 2003 SIP Revision, EPA knew, or should have known, of the inadequacy of the 1997/1999 SIP," and that "even if EPA did not actually know the extent to which the new modeling undermined the existing SIP, it has a duty to evaluate the adequacy of the existing SIP as a whole when approving SIP revisions." *Id.* at 590-91.

In reasoning that EPA's "obligation to take further action [could] be derived from the statutory requirement that the Administrator issue a SIP call upon a finding that the existing SIP is substantially inadequate," we noted:

*[T]he question is not whether EPA has discretion in determining substantial inadequacies exist, but whether EPA has unlimited discretion to ignore evi-*

*dence indicating an existing SIP might be substantially inadequate and choose to do nothing. We believe EPA's failure to act in light of the strong evidence provided in the 2003 SIP Revision demonstrating the substantial inadequacies of the 1997/1999 Plan is arbitrary and capricious.*

*Id.* at 593 (emphasis added). While *A.I.R.* addressed EPA's obligation to monitor the accuracy and efficacy of approved SIPs, its holding is relevant because it supports the proposition that if new information indicates to EPA that an existing SIP or SIP awaiting approval is inaccurate or not current, then, viewing air quality and scope of emissions with public interest in mind, EPA should properly evaluate the new information and may not simply ignore it without reasoned explanation of its choice.

The District argues that it was appropriate for EPA to ignore the 2007 8-hour ozone emissions inventory data because they were not relevant to the 2004 1-hour ozone emissions inventory data, and that any comparison would not be "an apples to apples comparison." We are not persuaded for several reasons. First, while the conclusions presented within the two SIPs might vary, the undisputed fact is that the EMFAC2007 revealed a significantly different measurement of expected NO<sub>x</sub> emissions (e.g., 597.8 tons per day in 2008) than did the data observed with EMFAC2002 (e.g., 429.1 tons per day in 2008). Given NO<sub>x</sub>'s integral role in the creation of harmful ground-level ozone, this disparity should have alerted EPA to the possibility that the 2004 Plan may have been significantly flawed.

Second, although the District characterizes the 8-hour ozone NAAQS as being so different from the 1-hour ozone standard as to make any comparison unreasonable, there is evidence that the two standards are significantly close enough that the above-noted differences in NO<sub>x</sub> emissions should have reasonably alerted EPA to the real possibility that the

data on which the 2004 SIP was based were inaccurate and ineffective. National Ambient Air Quality Standards for Ozone, 62 Fed. Reg. 38,856, 38,858 (July 18, 1997) (stating that the 8-hour standard (0.09 ppm) “generally represents the continuation of the present level of protection”); *see also* *S. Coast Air Quality Mgmt. Dist.*, 472 F.3d 882, 888 (D.C. Cir. 2006) (citing 62 Fed. Reg. at 38,858 for the proposition that the 8-hour ozone standard is only “marginally more stringent” than the 1-hour ozone standard it replaced).

Third, and most importantly, EPA, in its final rule, did not bother to address substantively the apparent disparities between the 2007 emissions inventory data and the 2004 emissions inventory data, leaving us with no means of determining whether there is any merit to the District’s argument. In this light, the District’s conclusions in its briefing that the 2007 emissions inventory data should have had no bearing on EPA’s approval of the 2004 SIP are unpersuasive insofar as they are presented for the purposes of litigation rather than framed objectively and scientifically. *See State Farm*, 463 U.S. at 50 (“[T]he courts may not accept appellate counsel’s *post hoc* rationalizations for agency action.”). EPA did not “bring its expertise to bear on” the updated emissions inventory data in the 2004 SIP approval process. *Id.* at 54. The agency did not adequately address the staleness of its data and availability of more current data before reaching its conclusion.

[5] Our role is not to substitute our conclusions based on the facts presented for those of the agency, and we express no opinion as to what conclusion EPA should have reached, with respect to the validity of the 2004 SIP, upon consideration of the 2007 data. But we should not silently rubber stamp agency action that is arbitrary and capricious in its reliance on old data without meaningful comment on the significance of more current compiled data. We hold that EPA’s failure to even consider the new data and to provide an explanation for its choice rooted in the data presented was arbitrary and capri-

cious. Indeed, it was unreasonable for EPA summarily to rely on the point of view taken under markedly different circumstances in the Seitz Memo and in *Sierra Club*, without advancing an explanation for its action based on “the facts found and the choice made.” *Burlington Truck Lines*, 371 U.S. at 168.

[6] Concluding that the agency’s action in approving the challenged SIP was arbitrary and capricious under the APA, we need not and do not reach petitioners’ other arguments. We grant the petition for review and remand the matter to EPA for further proceedings consistent with our decision.<sup>9</sup>

**PETITION GRANTED.**

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<sup>9</sup>Upon EPA’s reconsideration and subsequent final action, petitioners may again seek review of that EPA action, but shall file a new petition in order to do so. In such an instance, petitioners, where appropriate, may raise the issues not reached by us today.