

FOR PUBLICATION

UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

NATURAL RESOURCES DEFENSE
COUNCIL, INC., a non-profit
corporation; EAST YARD
COMMUNITIES FOR ENVIRONMENTAL
JUSTICE, a non-profit corporation;
COALITION FOR A SAFE
ENVIRONMENT, a non-profit
corporation,

Plaintiffs-Appellants,

v.

U.S. DEPARTMENT OF
TRANSPORTATION; RAY LAHOOD, in
his official capacity as Secretary of
Transportation; STATE OF
CALIFORNIA, DEPARTMENT OF
TRANSPORTATION; VICTOR MENDEZ,
Administrator, Federal Highway
Administration; JEFFREY PANIATI, in
his official capacity as Acting
Deputy Director of the Federal
Highway Administration,

Defendants-Appellees,

ALAMEDA CORRIDOR
TRANSPORTATION AUTHORITY,
Real Party in Interest-Appellee.

No. 12-56467

D.C. No.
2:09-cv-08055-
JAK-MAN

OPINION

Appeal from the United States District Court
for the Central District of California
John A. Kronstadt, District Judge, Presiding

Argued and Submitted
May 14, 2014—Pasadena, California

Filed October 30, 2014

Before: John T. Noonan, Kim McLane Wardlaw,
and Raymond C. Fisher, Circuit Judges.

Opinion by Judge Wardlaw

SUMMARY*

Environmental Law

The panel affirmed the district court’s summary judgment in favor of federal and state defendants in an action brought by environmental groups alleging that the defendants violated the Clean Air Act and the National Environmental Policy Act by failing to properly evaluate and disclose the potential environmental impact of a planned expressway connecting the Ports of Los Angeles and Long Beach to the I-405 freeway.

Pursuant to the Clean Air Act (CAA), the states must adopt a State Implementation Plan that provides for the

* This summary constitutes no part of the opinion of the court. It has been prepared by court staff for the convenience of the reader.

implementation and maintenance of national air quality standards. The CAA contains a “conformity” provision that prohibits federal participation in any project that fails to conform to an approved State Implementation Plan. The CAA delegated to the Environmental Protection Agency (EPA) and the U.S. Department of Transportation the duty to establish procedures to assure conformity for transportation projects. Pursuant to that authority, the EPA promulgated regulations mandating a “hot-spot analysis” for certain pollutants, including PM_{2.5} - the pollutant at issue. In the course of the expressway project’s approval process, the defendants conducted an air quality Conformity Determination, which involved a qualitative hot-spot analysis of existing concentration of PM_{2.5}, and an Environmental Impact Statement (EIS) as required by the National Environmental Policy Act.

The panel held that the defendants were not required to estimate PM_{2.5} increases within the area immediately adjacent to the proposed expressway, and concluded that the defendants’ Conformity Determination complied with the CAA. Specifically, the panel held that the CAA’s statutory phrase “any area” was ambiguous, and the governing regulations did not decisively answer whether the CAA required qualitative hot-spot analysis within the immediate vicinity of the project area during the time period at issue, but the EPA’s and Department of Transportation’s interpretation of the regulations—permitting the type of analysis performed here by the defendants—were entitled to considerable deference. The panel further held that the defendants’ Conformity Determination was neither arbitrary nor capricious.

Finally, the panel held that the EIS prepared by the defendants took the requisite “hard look” at the freeway project’s likely consequences and probable alternatives, and therefore the EIS comported with the National Environmental Policy Act.

COUNSEL

Adriano Martinez (argued), David Pettit, Natural Resources Defense Council, Santa Monica, California; Robert E. Yuhnke, Robert Yuhnke & Associates, Boulder, Colorado, for Plaintiffs-Appellants.

J. David Gunter II (argued), Ignacia S. Moreno, David Glazer, Norman Rave, United States Department of Justice, Washington, D.C., for Defendants-Appellees.

Jocelyn Denise Thompson (argued), Sharon Rubalcava, Shiraz D. Tangri, Marisa Blackshire, Alston & Bird LLP, Los Angeles, California, for Real Party in Interest-Appellee.

OPINION

WARDLAW, Circuit Judge:

Natural Resources Defense Council, East Yard Communities for Environmental Justice, and Coalition for a Safe Environment (collectively “NRDC”) appeal the district court’s grant of summary judgment in favor of the U.S. Department of Transportation and other federal and state defendants (collectively “Defendants”). NRDC argues that Defendants violated the federal Clean Air Act (“CAA”) and

the National Environmental Policy Act (“NEPA”) by failing to properly evaluate and disclose the potential environmental impact of a planned expressway connecting the Ports of Los Angeles and Long Beach to the I-405 freeway. We have jurisdiction under 28 U.S.C. § 1291, and we affirm the district court’s grant of summary judgment to Defendants.

I.

The Port of Los Angeles is our nation’s busiest container port.¹ Considered together with the adjacent Port of Long Beach, this port complex is among the ten busiest in the world, and it accounts for roughly forty percent of all waterborne cargo that enters the United States. BILL SHARPSTEEN, *THE DOCKS* 53-54 (2011). The port’s cargo volume is projected to continue rising for decades.²

Although the ports are an economic boon for the Los Angeles region, they also affect air quality in the surrounding area, especially in the adjacent communities of San Pedro and Wilmington. These impacts are projected to worsen with the rise in container volume at the ports. The State Route 47 Expressway Project (“Project”) is one of several port-related infrastructure projects designed to ease traffic congestion and mitigate air pollution. If built, the Project will connect the ports to the I-405 freeway via an elevated, 1.7 mile-long

¹ *Strategic Plan 2012-2017*, THE PORT OF LOS ANGELES, at 1 (2012), http://www.portoflosangeles.org/pdf/strategic_plan_2012_lowres.pdf (last visited Sept. 24, 2014).

² *See Port Master Plan*, THE PORT OF LOS ANGELES, at 9 (Feb. 2014), <http://www.portoflosangeles.org/planning/pmp/Amendment%2028.pdf> (last visited Sept. 24, 2014).

expressway. The Project's sponsors, which are now the Defendants in this litigation, assert that the Project will better integrate the ports with the freeway system, thereby reducing the need for surface-street travel by trucks carrying shipping containers, and the pollution generated while they run idle at traffic signals and railroad crossings.

In the course of the Project's approval process, Defendants conducted an air quality Conformity Determination and an Environmental Impact Statement ("EIS"). As one component of the Conformity Determination study, Defendants performed a qualitative "hot-spot" analysis that measured existing concentrations of PM_{2.5}, a type of fine particulate matter, and estimated the Project's likely impact on PM_{2.5} levels. Because there was no PM_{2.5} receptor located within the immediate vicinity of the Project, Defendants based their qualitative hot-spot analysis on data from a receptor five miles away from the project area. Defendants released a draft Conformity Determination in November 2008. Following a round of comments and revisions, the final Conformity Determination was issued in May 2009.

Meanwhile, Defendants prepared an EIS as required by NEPA. The EIS process began in 2004, and Defendants released a draft EIS in August 2007. The draft EIS prompted numerous comments, including comments from NRDC, to which Defendants responded at length. The comments also spurred Defendants to conduct additional studies, such as a Traffic Sensitivity Analysis and a Health Risk Assessment that detailed the Project's likely health impacts, including an increased risk of cancer in the areas immediately adjacent to the Project. Defendants released the final version of the EIS in May 2009, and signed the Record of Decision in August 2009.

In November 2009, NRDC filed a complaint in the Central District of California alleging that Defendants' approval of the Project violated CAA, NEPA, and the Administrative Procedure Act. At the district court's request, the parties briefed and argued cross-motions for summary judgment. On June 29, 2012, the district court issued an order granting summary judgment in Defendants' favor. This appeal follows.

II.

A district court's decision on cross-motions for summary judgment is reviewed de novo. *Am. Civil Liberties Union of Nev. v. City of Las Vegas*, 466 F.3d 784, 790 (9th Cir. 2006). "We view the evidence in a light most favorable to the non-moving party and decide whether there are any genuine issues of material fact and whether the district court correctly applied the substantive law." *FTC v. Stefanchik*, 559 F.3d 924, 927 (9th Cir. 2009).

Under the Administrative Procedure Act, we must "hold unlawful and set aside agency action, findings, and conclusions found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A). "Review under the arbitrary and capricious standard is narrow, and we do not substitute our judgment for that of the agency." *Barnes v. U.S. Dep't of Transp.*, 655 F.3d 1124, 1132 (9th Cir. 2011).

"When Congress has 'explicitly left a gap for an agency to fill, there is an express delegation of authority to the agency to elucidate a specific provision of the statute by regulation,' and any ensuing regulation is binding in the courts unless procedurally defective, arbitrary or capricious

in substance, or manifestly contrary to the statute.” *United States v. Mead Corp.*, 533 U.S. 218, 227 (2000) (quoting *Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 843-44 (1984)). Even if the agency has not formally interpreted the statute, *Chevron* deference applies when it has “promulgated a rule based on an implicit interpretation of the statute.” *Schleining v. Thomas*, 642 F.3d 1242, 1246 (9th Cir. 2011). An agency’s interpretation of its own regulation is “controlling unless plainly erroneous or inconsistent with the regulation.” *Auer v. Robbins*, 519 U.S. 452, 461 (2000) (internal quotation marks omitted).

III.

A.

The CAA mandates joint efforts between the federal government and the states to combat air pollution. Under the CAA’s statutory framework, the federal Environmental Protection Agency (“EPA”) begins by establishing National Ambient Air Quality Standards (“NAAQS”) for certain types of pollutants. 42 U.S.C. § 7409. Then, the EPA designates areas throughout the United States as “attainment,” “nonattainment,” or “maintenance” for each type of pollutant depending on whether these national standards have been met. *See* 40 C.F.R. § 93.101 (defining these terms). For PM_{2.5}, the pollutant at issue here, the EPA has designated the South Coast Air Basin—which encompasses the ports as well as most of the greater Los Angeles area—as “nonattainment.” The details of NAAQS enforcement are left to the states, each of which must adopt a State Implementation Plan that provides for the implementation and maintenance of national air quality standards. 42 U.S.C. § 7410(a)(1).

The CAA also contains a “conformity” provision that prohibits federal participation in any project that fails to conform to an approved State Implementation Plan. 42 U.S.C. § 7506(c)(1). The statute defines “conformity” to mean, in relevant part, that:

such activities will not—

- (i) cause or contribute to any new violation of any standard in any area;
- (ii) increase the frequency or severity of any existing violation of any standard in any area;
or
- (iii) delay timely attainment of any standard or any required interim emission reductions or other milestones in any area.

Id. § 7506(c)(1)(B). The CAA does not define the term “any area.” Instead, it delegates to the EPA and the U.S. Department of Transportation (“DOT”) the duty to “promulgate, and periodically update, criteria and procedures for demonstrating and assuring conformity in the case of transportation plans, programs, and projects.” *Id.* § 7506(c)(4)(B).

Acting pursuant to that authority, the EPA has promulgated regulations that mandate a “hot-spot analysis” for several air pollutants, including PM_{2.5}. Hot-spot analysis is described as

an estimation of likely future localized . . .
PM_{2.5} pollutant concentrations and a

comparison of those concentrations to the national ambient air quality standards. Hot-spot analysis assesses impacts on a scale smaller than the entire nonattainment or maintenance area . . . and uses an air quality dispersion model to determine the effects of emissions on air quality.

40 C.F.R. § 93.101. Project sponsors must carry out this hot-spot analysis to ensure that the project does not “cause or contribute to any new localized . . . PM_{2.5} violations, increase the frequency or severity” of such violations, or “delay timely attainment” of air quality goals. *Id.* § 93.116(a). When a project’s sponsors conduct a hot-spot analysis, concentrations “must be estimated and analyzed at appropriate receptor locations in the area substantially affected by the project.” *Id.* § 93.123(c)(1).

Hot-spot analyses may be either qualitative or quantitative. “Where quantitative analysis methods are not available,” as was true of PM_{2.5} during the period at issue here, the demonstration required by § 93.116(a) “must be based on a qualitative consideration of local factors.” *Id.* § 93.123(b)(2). The parties agree that Defendants were required to conduct a qualitative hot-spot analysis rather than a quantitative analysis.

In March 2006, the EPA and DOT jointly published the Transportation Conformity Guidance for Qualitative Hot-spot Analyses in PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas (“Conformity Guidance”). According to the EPA, all qualitative PM_{2.5} analyses “should be completed” according to the Conformity Guidance. 71 Fed. Reg. 12468, 12471 (Mar. 10, 2006). The Conformity Guidance does not define

“any area,” nor does it refer to “appropriate receptor locations.” It does, however, provide a detailed methodology for how project sponsors should conduct qualitative PM_{2.5} hot-spot analyses, and it features several examples of permissible analyses.

NRDC’s CAA claim turns on whether the statute’s use of the phrase “any area” means that Defendants were required to estimate PM_{2.5} increases within the area immediately adjacent to the proposed expressway. If Defendants were required to do so, then it follows that their approval of the Project was contrary to law and must be set aside. If not, then their Conformity Determination complied with the CAA.

B.

1.

NRDC argues that the plain meaning of § 7506(c)(1)(B) compels the conclusion that “any area” means “‘all’ or ‘every’ part of the ‘area’ affected by project emissions,” and thus that Defendants were required to measure PM_{2.5} concentrations within the immediate vicinity of the Project. We agree that “read naturally, the word ‘any’ has an expansive meaning.” *Ali v. Fed. Bureau of Prisons*, 552 U.S. 214, 219 (2008) (alterations and internal quotation marks omitted). However, NRDC’s plain meaning argument ignores a critical, obvious ambiguity in the phrase “any area”: the word “area.”

On its own, the word “area” does not tell us whether Defendants were required to measure PM_{2.5} concentrations within the area immediately adjacent to the proposed expressway or in any other “area.” The plain meaning of

“area” encompasses a wide variety of sizes. “Area” is defined as “a region or part of a town, a country, or the world,” “a space allocated for a specific purpose,” or “the extent or measurement of a surface or piece of land.” NEW OXFORD AMERICAN DICTIONARY 83 (3rd ed. 2010). Additionally, the statutory context does not allow us to pinpoint the meaning of “area.” A different provision of the CAA requires that states send the EPA “a list of all areas (or portions thereof) in the State,” 42 U.S.C. § 7407(d)(1)(A), but this usage of “area” appears to refer to entire air quality regions, which often include multiple counties. Likewise, the statutory section concerning State Implementation Plans repeatedly uses the term “areas” to describe air quality regions. *E.g., id.* § 7410(a)(2)(I). Thus, we are convinced that the statutory phrase “any area” is ambiguous.

2.

Because Congress has not “directly spoken to the precise question at issue,” *Chevron*, 467 U.S. at 842, we look to the relevant agencies’ interpretations of the ambiguous phrase “any area” during the period at issue in this appeal. NRDC asserts that the EPA has adopted a regulatory interpretation that supports its understanding of “any area,” and it argues that EPA and DOT interpretations to the contrary are not entitled to judicial deference.

NRDC’s argument begins with an EPA rule interpreting the key statutory phrase “increase the frequency or severity of any existing violation of any standard in any area.” 42 U.S.C. § 7506(c)(1)(B)(ii). According to the EPA’s regulatory definition,

[i]ncrease the frequency or severity means to cause *a location* or region to exceed a standard more often or to cause a violation at a greater concentration than previously existed

40 C.F.R. § 93.101 (emphasis added). NRDC argues the term “a location” refers to an area smaller than the project area, such as the area immediately adjacent to the expressway. In March 2010, nearly a year after the Defendants issued their Conformity Determination, the EPA issued an amended rule which “specifically clarifies that the term ‘any area’ in CAA section 176(c)(1)(B) applies to any portion of a nonattainment or maintenance area, including the local area affected by a transportation project.”³ 75 Fed. Reg. 14,260, 14,276 (Mar. 24, 2010). NRDC argues that the EPA’s 2010 amendment to 40 C.F.R. § 93.116 confirms that the term “a location” referred to an area smaller than the project area.

NRDC also points to the regulatory requirement that hot-spot analyses estimate pollutant concentrations at “appropriate receptor locations in the area substantially affected by the project.” 40 C.F.R. § 93.123(c)(1). In NRDC’s view, this provision’s use of the plural “locations,” and its reference to “the area significantly affected by the project,” impliedly interprets the CAA’s “any area” requirement to mandate collection and analysis of data drawn

³ In explaining its amended rule, the EPA noted that “[i]n practice, EPA’s regulations will ensure that any project that creates a new violation or worsens an existing violation of the NAAQS in the local area affected by the project (either by increasing the number of violations or the severity of an existing violation) will not be found to conform.” 75 Fed. Reg. 14,260, 14,278 (Mar. 24, 2010).

from the project's immediate vicinity. Finally, NRDC cites the EPA's 1997 response to a public comment on proposed hot-spot rules. In this response, the EPA noted that some commenters had proposed that "a project should be allowed to make a violation worse in a place not frequented by the public if it improves air quality and eliminates violations where public exposure is more likely." 62 Fed. Reg. 43,780, 43,798 (Aug. 15, 1997). The EPA, however, rejected this view, explaining that

Clean Air Act section 176(c)(1)(B) states that transportation projects must not cause or contribute to any new violation of any standard in any area, or increase the frequency or severity of any existing violation of any standard in any area. It is not public exposure to a violation of a standard that the Clean Air Act language prohibits; it prohibits any violation of any standard in any area. The conformity rule cannot override the Clean Air Act to make exceptions that create new or worsen existing violations.

Id.

NRDC's arguments, while not without merit, fail to persuade us that during the period at issue in this appeal the EPA interpreted "any area" in the manner NRDC proposes. First, that 40 C.F.R. § 93.101 refers to "a location or region" does not persuade us that the "area" referenced is the area immediately adjacent to the expressway as opposed to the broader project area. Although the EPA clarified the term "any area" in its 2010 amendments to mean "any portion of a nonattainment or maintenance area, including the local area

affected by the transportation project,” the EPA did not clearly indicate that this interpretation should apply retroactively. 75 Fed. Reg. at 14,276; *cf. Kankamalage v. INS*, 335 F.3d 858, 862 (9th Cir. 2003) (observing that a regulation may not apply retroactively unless it “unambiguously directs retroactive application”).

Nor do we find the language of 40 C.F.R. § 93.123(c)(1) particularly relevant. To begin with, it is not clear from the language or structure of this provision whether its “appropriate receptor locations” requirement applies to *all* hot-spot analyses or only the more rigorous quantitative analyses. Section 93.123(c)(1) is listed as one of several “General requirements,” but § 93.123(b)(2) explicitly carves out an exception for qualitative analyses, which “must be based on a qualitative consideration of local factors.” The EPA’s own statements and publications also indicate that the “appropriate receptor locations” provision is inapplicable to qualitative hot-spot analyses. The qualitative Conformity Guidance says nothing about “receptors” or “appropriate receptor locations.” In a 2010 response to public comments, the EPA noted that it “intends to describe appropriate receptor locations in its forthcoming *quantitative* PM hot-spot guidance.” 75 Fed. Reg. 14,260, 14,282 (Mar. 24, 2010) (emphasis added). The EPA’s recent quantitative Conformity Guidance made good on this promise. *See* EPA, *Transportation Conformity Guidance for Quantitative Hot-spot Analyses* 113-15 (Nov. 2013) (defining and explaining appropriate receptor locations).

Finally, the EPA’s 1997 response does not settle the matter. The response does not discuss hot-spot analysis, much less the proper application of qualitative PM_{2.5} hot-spot analysis. In addition, the response simply reiterates “that

transportation projects must not cause or contribute to any new violation of any standard in any area, or increase the frequency or severity of any existing violation of any standard in any area.” 62 Fed. Reg. at 43,798. It does not interpret the term “any area” or state that the term refers to an area immediately adjacent to a transportation project. Thus, the 1997 response does not establish the meaning of the term “any area” at the time the Defendants issued their Conformity Determination.

Therefore, the governing regulations do not decisively answer whether the CAA required qualitative hot-spot analysis within the immediate vicinity of the project area during the time period at issue.

3.

The EPA and DOT’s Conformity Guidance implicitly, but authoritatively, fills this void by interpreting these ambiguous regulations to permit the type of analysis Defendants performed here. Although the Conformity Guidance does not explicitly interpret terms such as “any area,” “a location,” or “appropriate receptor locations,” the methodological examples it sets forth make clear that a qualitative PM_{2.5} hot-spot analysis may be performed by analyzing data from an existing air quality monitor in a location similar to the project area, even if that monitor is not located within the immediate vicinity of the new project. Because this interpretation is not “plainly erroneous or inconsistent with the regulation,” *Auer*, 519 U.S. at 461, we must afford it considerable deference.

The Conformity Guidance, which the two agencies jointly published in March 2006, was “developed . . . to help state and local agencies meet the [regulatory] hot-spot analysis

requirements.” *Conformity Guidance* at 2. Indeed, it states that “future qualitative PM_{2.5} . . . hot-spot analyses should be based on today’s new guidance.” *Id.*; see also 71 Fed. Reg. at 12471 (referring to the Conformity Guidance and stating that “[q]ualitative PM_{2.5} hot-spot analyses should be completed according to joint EPA and DOT guidance”). The Conformity Guidance “highlights two methods for completing qualitative PM_{2.5} . . . analyses,” including one in which the project sponsor compares the project location to “another location with similar characteristics.” *Conformity Guidance* at 17. The comparison method “involves reviewing existing highway or transit facilities that were constructed in the past and built in locations similar to the proposed project and, whenever possible, near an air quality monitor (a ‘surrogate’) to allow a comparison of PM_{2.5} . . . air quality concentrations.” *Id.*

The Conformity Guidance then provides several examples of permissible comparisons. Two of these examples suggest that a project can conform even if it increases PM_{2.5} concentrations in the area immediately surrounding the project, and even if the surrogate is in violation of NAAQS. In Example A, a project sponsor plans to build a bus terminal that will “significantly increase diesel bus traffic at the project’s location.” *Id.* at 27. The project sponsor measures PM_{2.5} emissions in “the vicinity” of a similar, already-existing bus terminal. *Id.* The project sponsor also uses a “nearby” air monitor to determine existing air-quality conditions. *Id.* The “similar” bus terminal’s PM_{2.5} emissions violate NAAQS standards. *Id.* However, because the new bus terminal will include “mitigation measures,” the project sponsor concludes that the new terminal will conform. *Id.* In Example B, the project sponsor plans to modify a highway interchange “connecting a primary route to an interstate” which will be

used by a “significant number of diesel vehicles.” *Id.* at 28. The project sponsor collects air quality information from the project’s “location.” *Id.* The project is found to meet the conformity hot-spot requirements because “any increase in the emissions due to traffic changes associated with the project[] would be offset by decreases in the emissions from the transportation facility.” *Id.*

Only one published decision has addressed the Conformity Guidance, but it is well-reasoned and highly instructive. In *Audubon Naturalist Society of the Central Atlantic States, Inc. v. U.S. Department of Transportation*, 524 F. Supp. 2d 642 (D. Md. 2007), environmental advocacy groups challenged the PM_{2.5} hot-spot analysis for a highway project, in part because the project sponsor used an existing air monitor located outside the immediate vicinity of the proposed highway. *Id.* at 701. The district court held that the regulations governing qualitative PM_{2.5} hot-spot analyses are ambiguous and that the Conformity Guidance is entitled to *Auer* deference as a reasonable interpretation of those regulations. *Id.* at 697–99. The court then noted that the Conformity Guidance explicitly recommends the “monitor comparison method,” in which data from “another location with similar characteristics” is used to project the likely impact of the new project. *Id.* at 700. Ultimately, the court upheld the project sponsors’ analysis, reasoning that the Conformity Guidance neither mentions a distance requirement nor requires installation of new air monitors; rather, it only requires project sponsors to use nearby air monitors at “locations similar to the proposed project.” *Id.* at 701 (quoting *Conformity Guidance* at 17).

We also note that the Federal Highway Administration (“FHWA”), an agency within the DOT, has published several

examples of permissible qualitative $PM_{2.5}$ hot-spot analyses. According to FHWA's website, these are analyses that "could be replicated in other areas of the country."⁴ Two of these examples—the Woodrow Wilson Bridge and Prairie Parkway projects—are of particular interest. In the Woodrow Wilson Bridge hot-spot analysis, the project sponsor based its estimated $PM_{2.5}$ concentrations on a surrogate air monitor twenty miles away from the project site.⁵ Because the estimated traffic levels for the Woodrow Wilson Bridge project were similar to the traffic levels at the surrogate monitor, and because the surrogate did not violate $PM_{2.5}$ standards, the sponsor concluded that the project would not violate $PM_{2.5}$ standards. *Id.* at 21. Similarly, in the Prairie Parkway hot-spot analysis, the project sponsor based its estimated $PM_{2.5}$ concentrations on a surrogate air monitor roughly ten miles away from the project site.⁶ Traffic levels near the surrogate were similar to estimated traffic levels for the project, and the surrogate did not violate $PM_{2.5}$ standards. *Id.* at 23. Thus, the sponsor concluded that Prairie Parkway project would not violate $PM_{2.5}$ standards. *Id.* While we acknowledge that these examples are less authoritative than the Conformity Guidance—in part because the studies

⁴ FHWA, *Examples of Transportation Conformity Practices*, http://www.fhwa.dot.gov/environment/air_quality/conformity/practices/ (last visited Sept. 24, 2014).

⁵ *Woodrow Wilson Bridge $PM_{2.5}$ Conformity Analysis*, at 15 (Oct. 2006), http://www.fhwa.dot.gov/environment/air_quality/conformity/practices/woodrow_wilson.pdf (last visited Sept. 24, 2014).

⁶ *Fine Particulate Matter ($PM_{2.5}$) Project Level Hot-Spot Analysis: Prairie Parkway Study*, ILL. DEP'T OF TRANSP. 9 (Jan. 4, 2008), http://www.fhwa.dot.gov/environment/air_quality/conformity/practices/prairie_parkway.pdf (last visited Sept. 24, 2014).

themselves were conducted by state agencies—FHWA’s endorsement provides further indication that Defendants were permitted to rely on a surrogate air monitor outside the immediate vicinity of the project. *See United States v. Mead Corp.*, 533 U.S. 218, 234 (2001) (“[A]n agency’s interpretation may merit some deference whatever its form.”); *J.G. v. Douglas Cnty. Sch. Dist.*, 552 F.3d 786, 797 n.8 (9th Cir. 2008) (“Although a state agency’s interpretation of federal law is not entitled to deference, the Secretary’s approval of that agency’s interpretation is due some deference because it shows a federal agency’s interpretation of the federal statute that it is charged to administer.” (citation omitted)).

NRDC offers no persuasive reason why we should not rely upon these agency interpretations. Having already concluded that the language of the CAA and the hot-spot regulations are ambiguous, we address NRDC’s three remaining arguments: that the CAA delegates interpretive authority to the EPA, not FHWA; that the agencies’ interpretations were not adopted through notice-and-comment rulemaking; and that FHWA’s application of the Conformity Guidance represents an inconsistent and unexplained change in policy. NRDC’s first remaining objection makes little sense. The EPA and DOT, to whom Congress expressly delegated interpretive authority, jointly published the Conformity Guidance on which Defendants relied. 42 U.S.C. §§ 7506(c)(4)(B); EPA, *Transportation Conformity Guidance for Quantitative Hot-spot Analyses* 1 (Nov. 2013). Moreover, FHWA—which performed the hot-spot analysis here and published examples of permissible qualitative analyses on its website—is an agency within the DOT that reports to the Secretary of Transportation.

NRDC's second objection fares no better. We afford *Auer* deference to an agency's interpretation of its own regulations regardless of whether that interpretation was adopted through notice-and-comment rulemaking. *See, e.g., Chase Bank USA, N.A. v. McCoy*, 131 S. Ct. 871, 881 (2011) (deferring to agency's interpretation of its own regulation that was advanced in an amicus brief).⁷

NRDC's third remaining argument, its objection to the agency's purported change in policy, is more properly analyzed as a challenge to this particular Conformity Determination, not as a challenge to the agency's general interpretation of the permissible methodology for conducting qualitative hot-spot analyses. We therefore turn to the review of the Conformity Determination before us.

C.

Having concluded that the agencies' interpretation of the appropriate hot-spot analysis governs, it is clear that Defendants' Conformity Determination was neither arbitrary nor capricious.

Defendants performed a qualitative PM_{2.5} hot-spot analysis using the comparison method described in the Conformity Guidance. Defendants chose the North Long Beach air monitoring station, located roughly five miles away from the far end of the project, as a surrogate because its PM_{2.5} concentrations were "representative of the project

⁷ NRDC's reliance on *High Sierra Hikers Ass'n v. Blackwell*, 390 F.3d 630 (9th Cir. 2004), is misplaced. *High Sierra Hikers* stands for the uncontroversial—but inapposite—proposition that an informal agency interpretation is not entitled to *Chevron* deference. *Id.* at 648.

area.” To reach this determination, Defendants compared the North Long Beach station to a second monitoring station located closer to the project area.⁸ They found that annual average daily traffic, trucks as a percentage of all traffic, and PM_{2.5} concentrations at the closer station were all similar to those at the North Long Beach station, and therefore concluded that “the North Long Beach station reflects the same traffic conditions as at the project location, and the monitoring data are shown to be representative of ambient air quality for the project area.”

Defendants then used the North Long Beach PM_{2.5} data as a baseline to estimate the Project’s likely impacts on PM_{2.5} concentrations. Defendants projected that although the Project might increase total vehicle miles traveled in comparison to the no-build alternative, this impact would be offset by faster vehicle speeds and reduced traffic congestion. As a result, Defendants concluded, “PM_{2.5} emissions of the build alternatives would be the same or less than the No Build alternative,” and “[b]ased on the current ambient PM_{2.5} concentrations in the project area, the project is not expected to have [a] significant localized PM_{2.5} concentration increase when compared to the No Build alternative.” Thus, because the Project would not cause a new PM_{2.5} violation, increase the severity of an existing violation, or delay the implementation of national air quality standards for PM_{2.5}, Defendants concluded that the Project conforms to statutory and regulatory requirements.

Defendants’ Conformity Determination using this comparison method was a reasonable application of the EPA

⁸ This closer station was not chosen for the hot-spot analysis because it was relatively new and thus lacked extensive historical data.

and DOT's Conformity Guidance. The Conformity Determination compares favorably to the hot-spot analysis approved in *Audubon*, as well as to the Woodrow Wilson Bridge and Prairie Parkway analyses endorsed by the FHWA. The Conformity Guidance makes clear that Defendants were permitted to use a surrogate air monitor, and this monitor's distance from the Project—about one mile from the near end of the Project, and five miles from the far end—was well within the ranges approved in *Audubon* and the Woodrow Wilson and Prairie Parkway examples. In addition, Defendants used a second air monitor to verify that the North Long Beach station was representative of air quality in the project area, further bolstering the accuracy of their qualitative analysis.

IV.

Under NEPA, federal agencies must prepare an EIS when considering “major Federal actions significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(C). Federal regulations require that the EIS “provide full and fair discussion of significant environmental impacts,” 40 C.F.R. § 1502.1, as well as “state how alternatives considered in it and decisions based on it will or will not achieve the requirements of [NEPA] and other environmental laws and policies,” *id.* § 1502.2(d). The EIS's discussion of alternatives “should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public.” *Id.* § 1502.14.

Generally, our review is limited to whether the EIS contains “a reasonably thorough discussion of the significant

aspects of the probable environmental consequences.” *City of Carmel-by-the-Sea v. U.S. Dep’t of Transp.*, 123 F.3d 1142, 1150 (9th Cir. 1997) (internal quotation marks omitted). “Once satisfied that a proposing agency has taken a ‘hard look’ at a decision’s environmental consequences, our review is at an end.” *Id.* at 1151 (alterations and internal quotation marks omitted). NRDC contends that Defendants violated NEPA because their EIS failed to address whether the potential increase in PM_{2.5} concentrations would violate 2006 NAAQS standards and failed to fully disclose the Project’s likely effects on public health.

Contrary to NRDC’s argument, the EIS did not impermissibly rely on outdated air quality standards. In 2006, the EPA updated the NAAQS standard for PM_{2.5}, cutting the maximum permissible level to 35 micrograms per cubic meter. 71 Fed. Reg. at 61,144 (Oct. 17, 2006). These new standards did not go into effect for transportation conformity purposes until December 2010, over a year after the Conformity Determination was completed. *See* 75 Fed. Reg. 14260, 14262 (Mar. 24, 2010) (“Transportation conformity for the 2006 PM_{2.5} NAAQS does not apply until December 14, 2010.”).

Further, Defendants correctly contend that the EIS was forthright in discussing the new standard. For example, the EIS acknowledged that even though PM_{2.5} levels were below the old NAAQS standard in the two preceding years, “the current federal 24-hour PM_{2.5} standard of 35 [micrograms per cubic meter] was exceeded each year in the past 3 years.” The EIS also discussed at length the results of Defendants’ air quality study, and concluded that any localized increase in PM_{2.5} would be offset by reduced vehicle congestion and idling in the project area as a whole. The EIS also

incorporated Defendants' response to NRDC's comment on this point. Defendants noted that according to the results of the air quality study, "the project will not adversely affect the human environment by contributing to increased PM_{2.5} concentrations in the study area or delay attainment of the NAAQS regardless of whether the study area is subject to the existing or revised 24-hour NAAQS."

In addition, Defendants' EIS adequately disclosed the Project's likely health effects. The EIS included a Health Risk Assessment that was subject to the public comment and review process. In the Health Risk Assessment, Defendants disclosed that the Project would lead to increased PM₁₀ and PM_{2.5} concentrations in the immediate vicinity of the Project, and how those increased concentrations could have adverse health effects for local residents. The Health Risk Assessment also acknowledged that this type of transportation project usually leads to increased PM_{2.5} concentrations in the area immediately adjacent to the project.

Defendants also conducted detailed studies based on 2006-2007 meteorological data, where they estimated cancer- and other health-risk increases at thousands of residences, schools, parks, and other areas in the immediate vicinity of the Project. Defendants explained the study results with color-coded diagrams illustrating the precise locations where adverse health effects would be the greatest. They also included statistical discussions and tables illustrating that roughly 97% of the adverse health affects would be due to diesel particulate matter concentrations. Additionally, Defendants determined that a heating, ventilation, and air conditioning retrofit program for residences within the vicinity of the significant impact zone would be a feasible mitigation measure.

Because we are satisfied that Defendants took a “hard look” at the Project’s likely consequences and probable alternatives, *see Carmel-by-the-Sea*, 123 F.3d at 1151, we agree with the district court that the EIS comported with NEPA requirements.

V.

Defendants’ Conformity Determination did not violate the CAA, nor did their EIS violate NEPA. Accordingly, we **AFFIRM** the district court’s grant of summary judgment.