

Comments by Friends of Calwa, Inc. and Fresno Building Healthy Communities

Project Level Conformity Determination for the South Fresno State Route 99 Corridor Project

CTIPS ID 203-00000752

Submitted July 14, 2024

TABLE OF CONTENTS

INTRODUCTION	1
COMMENTING PARTIES.....	5
A. Friends of Calwa, Inc.	5
B. Fresno Building Healthy Communities.....	6
FACTUAL AND LEGAL BACKGROUND	7
I. Factual Background	7
A. The Project’s Setting Amidst Overburdened South Fresno Communities of Color.....	7
B. Existing South Fresno Air Quality Burdens and Adverse Health Impacts.....	14
C. The Highway Interchange Expansion Project and its Threats to Air Quality.....	20
II. Procedural History.....	23
A. Caltrans’ Environmental Analysis Under CEQA and NEPA	24
B. FHWA’s Transportation Conformity Determination	25
C. Challenges to Project Approvals and the Resulting Clean Air Act Remand	26
III. Legal Framework.....	28
ANALYSIS	30
I. FHWA’s Conformity Analysis Fails to Analyze the Project in its Entirety	30
II. FHWA violates the Clean Air Act and its Implementing Regulations by Failing to Require a Hot-Spot Analysis to Inform its Conformity Determination	35
A. FHWA Acknowledges the Project will Occur in Non-Attainment and Maintenance Areas for Particulate Matter Pollution.....	35

B. FHWA Erred in Adopting Caltrans’ Flawed Conclusion That the Project Is Not One of Air Quality Concern.....	35
1. Caltrans’ own analysis shows a hot-spot analysis was required	36
a. The Project is an “expanded highway project” with a “significant increase in the number of diesel vehicles”	36
b. The Project will worsen level-of-service at major intersections	41
c. Caltrans ignores EPA’s Guidance showing that a Hot-Spot Analysis is required.....	42
2. The Project will contribute far more truck trips and congestion than Caltrans acknowledges	43
a. Caltrans ignores the Project’s effects on nearby industrial growth....	43
b. Caltrans ignores evidence that the increase in highway capacity will induce additional demand	49
III. The Project is Substantially Different from the Project Outlined in the Relevant Regional Transportation Plan and Transportation Improvement Program	51
IV. The Project is Inconsistent with Plans to Attain and Maintain Air Quality for Ozone and Particulate Matter in the Valley.....	53
A. Ozone.....	53
B. PM2.5	55
C. PM10	56
V. Caltrans and FHWA Did Not Sufficiently Engage the Public or Interagency Consultation Partners.....	57
VI. The Project Will Further Systemic Racism and Disenfranchisement of Low-Income Communities of Color Impacted by Decades of Transportation Inequities.....	63
CONCLUSION	69
APPENDIX A	70
LIST OF EXHIBITS	71
ATTACHMENT A: Comments on the Project Level Conformity Determination for the South Fresno State Route 99 Corridor Project by Amy Lee, Ph.D and Regan Patterson, Ph.D (July 14, 2024)	

INTRODUCTION

With this comment period, the Federal Highway Administration (“FHWA”) invites the public to weigh in on its proposed determination that the California Department of Transportation’s (“Caltrans”) South Fresno State Route 99 Corridor Project (the “Project”) conforms with plans to achieve national ambient air quality standards promulgated under the federal Clean Air Act. The problem for FHWA today remains the same as when Caltrans first invited public comment on the Project almost three years ago: The transportation conformity analysis that Caltrans provided to FHWA and to interagency consultation partners, and on which FHWA now solicits public comment, is erroneous, incomplete, and unlawful. FHWA will be in straightforward violation of section 176(c) of the Clean Air Act, 42 U.S.C. § 7506(c), and its implementing regulations if it proceeds with this proposed conformity determination. And it will make a mockery of its own promises to promote environmental justice and to meaningfully engage impacted communities in agency decision-making – particularly disadvantaged communities, like South Fresno, that have borne the brunt of over a century of state and federal discrimination in transportation planning.¹

Caltrans asserts in its Air Quality Conformity Analysis that the Project is an “interchange reconfiguration project that does not increase the capacity of [State Route 99] or the interchanges.”² Not so. Caltrans is explicit in the Project’s Environmental Analysis/Environmental Impact Report (“EIR/EA”) that the Project is intended to build “additional capacity of the interchanges.”³ It does so by, among other things, constructing new four-lane bridge overcrossings, adding two to four new ramps at each interchange, expanding on- and off-ramps from one to four-lanes, and installing additional structures to facilitate increased traffic flow – all in the service of an “ultimate route concept” to expand the State Route 99 mainline from six to eight lanes.⁴ In short, Caltrans is proposing to explode two small suburban interchanges that structurally limit flow of diesel truck traffic into massive spaghetti bowls of ramps, lanes, bridges, and concrete. This overhaul will more than double capacity for heavy-duty trucks and cars to travel between an expanding State Route 99 and local South Fresno roadways; indeed, the Project appears to expand the number of interchange lanes as much as eight-fold.⁵

Caltrans asserts in its Air Quality Conformity Analysis that the Project “will not cause a significant increase in the number of diesel vehicles in the project area.”⁶ False again. Even

¹ See Attachment A, Dr. Amy Lee and Regan Patterson, EXPERT REPORT ON PROJECT LEVEL CONFORMITY DETERMINATION FOR THE SOUTH FRESNO STATE ROUTE CORRIDOR PROJECT (July 14, 2024) [hereinafter “LEE AND PATTERSON EXPERT REPORT”].

² CALTRANS, AIR QUALITY CONFORMITY ANALYSIS: SOUTH FRESNO STATE ROUTE 99 CORRIDOR 23 (Aug. 24, 2022), Attachment 1 to FHWA May 31, 2024 Public Notice of Project Level Conformity Determination for the South Fresno State Route 99 Corridor Project [hereinafter “AIR QUALITY CONFORMITY ANALYSIS”].

³ Exhibit 3, CALTRANS, SOUTH FRESNO STATE ROUTE 99 CORRIDOR PROJECT: FINAL ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL ASSESSMENT WITH FINDING OF NO SIGNIFICANT IMPACT 102 (Jan. 2023) [hereinafter “FINAL EIR/EA”].

⁴ *Id.* at 6-7, 12-15.

⁵ See LEE AND PATTERSON EXPERT REPORT at 5 (“Increasing the number of lanes and ramps of the two interchanges is patently increasing the capacity of the interchanges.”); *id.* at 6 (concluding based on analysis of Project plan documents that “the preferred alternative for the North Avenue interchange increases the number of laned on- and off-ramps from a total of two to 16”).

⁶ AIR QUALITY CONFORMITY ANALYSIS at 13.

according to Caltrans' own erroneously conservative estimates, the Project will induce a 42% increase in total traffic and a 93% increase in truck traffic at the expanded American Avenue interchange relative to the No Build alternative.⁷ According to Caltrans, by 2046 the Project will add an average of 3,000 new daily vehicle trips to the American Avenue interchange, at least 600 of which will be daily truck trips.⁸ Indeed, Caltrans concedes in the Air Quality Conformity Analysis that “[i]ncreases in truck traffic at the intersections are to be expected, as the improvements will be specifically designed to accommodate such vehicles.”⁹ This increase in truck traffic will explode particulate matter emissions at the American Avenue interchange. For instance, by 2046, PM10 emissions will increase to 971% of emissions under the No Build alternative, even under Caltrans' erroneously conservative estimates.¹⁰

Caltrans asserts in its Air Quality Conformity Analysis that “[n]ew truck traffic will not be induced to use these interchanges unless they are part of a new facility.”¹¹ Caltrans is not only wrong: It failed to even consider the possibility that the highway expansion Project would induce increases in vehicle and diesel truck travel. This is despite a robust scientific literature – including studies created and solicited by Caltrans itself – establishing that highway expansion projects like this one “spur[] more vehicle travel on the highway” by increasing highway accessibility and reducing travel costs and burden, as well as spurring “land development activity” that in turn contributes even more truck and car traffic.¹² The attached expert report by Dr. Regan Patterson, Assistant Professor of Civil and Environmental Engineering at the University of California Los Angeles (UCLA) School of Engineering, and Dr. Amy Lee, Postdoctoral Scholar at the UCLA Luskin School of Public Affairs Institute of Transportation Studies, demonstrates that “the project will induce travel, particularly truck travel” and consequently “increase vehicle emissions, including [particulate matter], nitrogen oxides (NOx), and air toxics.”¹³

Caltrans asserts in its Air Quality Conformity Analysis that there will be no “influx of traffic due to a newly built industrial, commercial, or trucking facility” and that the “proposed project will be built to serve the already established commercial and retail industry.”¹⁴ This is a lie. Public records show that by the time Caltrans issued this Air Quality Conformity Analysis in August 2022, it had already been coordinating with the County of Fresno for at least a year to ensure that the Project would be designed to specifically accommodate a planned 3,000-acre County Business and Industrial Campus (the “Industrial Park”) in the unincorporated community of Malaga, immediately adjacent to the Project's American Avenue interchange. In planning since at least 2017, the Industrial Park will develop upwards of 19 million square feet of commercial and industrial building inventory, generating between 4 million and 17 million

⁷ *Id.* at 26.

⁸ FINAL EIR/EA at 64. Notably, Caltrans in its Air Quality Conformity Analysis concludes that *truck traffic* (rather than overall vehicle traffic) will increase by 3,000 trucks per day by 2046 relative to the No Build alternative. AIR QUALITY CONFORMITY ANALYSIS at 27 (“The 2046 Alternative 2 No Build truck traffic is 7,800 vehicles. For 2046 Build Alternative 1, truck traffic increases to 10,800. 2046 Build Alternative 2 truck traffic increases to 10,800.”)

⁹ AIR QUALITY CONFORMITY ANALYSIS at 24.

¹⁰ Exhibit 4, CALTRANS, AIR QUALITY REPORT: SOUTH FRESNO STATE ROUTE 99 CORRIDOR 38 tbl.19 (Jan. 2021) [hereinafter “AIR QUALITY REPORT”] (estimating Alternative 2 Project PM10 emissions in 2046 at .233 lbs/peak hour, versus .024 lbs/peak hour if not Project is built).

¹¹ AIR QUALITY CONFORMITY ANALYSIS at 24.

¹² LEE AND PATTERSON EXPERT REPORT at 9, 12.

¹³ *Id.* at 13.

¹⁴ AIR QUALITY CONFORMITY ANALYSIS at 12, 23 & 26.

additional annual truck trips. Indeed, emails and memoranda exchanged between Caltrans and County staff in fall and winter 2021 show that Caltrans studied and accommodated the County's requests to build at least four lanes at the Project's American Avenue interchange to provide sufficient capacity for the massive influx of truck traffic that the Industrial Park is expected to generate. Caltrans also acknowledged in the Project EIR/EA that expansive new industrial buildout around the Project interchange sites is expected under the City's proposed South Central Specific Plan (which estimates buildout of more than 18.5 million square feet of new industrial uses by 2040). Yet Caltrans neither disclosed this information to FHWA and interagency consultation partners nor took it into account in its traffic and air quality projections or its conformity analysis.¹⁵

Caltrans asserts in its Air Quality Conformity Analysis that the Project will "reduc[e] traffic congestion at existing interchanges."¹⁶ Caltrans' own analyses again show otherwise. According to Caltrans, both North Avenue interchange ramps and one of two American Avenue interchange ramps are already operating at a level-of-service ("LOS") of D.¹⁷ And construction of the Project will significantly degrade LOS at all studied interchanges. For instance, Caltrans projects that by 2046 *every* North Avenue interchange ramp will operate at an LOS of F (the worst congestion rating) under all Project alternatives, as will between half and all American Avenue intersections depending on choice of alternative.¹⁸ For a Project that is intended to ease congestion, these findings alone should have been a massive red flag to FHWA and are reason enough to require a hot-spot analysis for the Project and vacate the existing conformity determination. As bad as these findings are, the lack of an induced demand analysis means that Caltrans' conformity analysis *underestimates* the significant congestion problems the Project will create for South Fresno.¹⁹

Adding trauma to injury, Caltrans depicts South Fresno as a lifeless industrial zone: a place for industry, not for people. Indeed, Caltrans does not mention South Fresno communities or residents once in any of its conformity documents. In its Project EIR/EA, Caltrans goes so far as to assert there are "no residential neighborhoods" in the Project area²⁰ and that "there are only industrial and commercial businesses in proximity to the project."²¹ South Fresno residents who live, work, learn, play, and pray in the Project area have been fighting for years to correct this heartless and damaging mischaracterization.

The human map of South Fresno is vast. Despite systemic discrimination and divestment, the breadth and depth of human capital in South Fresno neighborhoods supports robust civic infrastructure, civic engagement, and social cohesion. The main street of the historic

¹⁵ See FINAL EIR/EA at 276-77.

¹⁶ AIR QUALITY CONFORMITY ANALYSIS at 23.

¹⁷ *Id.* at 28 tbl. A.

¹⁸ *Id.* at 30-33 tbls. F-K.

¹⁹ LEE AND PATTERSON EXPERT REPORT at 9 (explaining that "[e]xpanding highway capacity is often proposed," as by Caltrans here, "as a strategy to reduce traffic congestion, improve traffic operations, increase access to land and for certain vehicles, and even to improve air quality and reduce greenhouse gas (GHG) emissions (Volker et al. 2020). . . . But this logic, and therefore the environmental analyses for projects that expand highway infrastructure, is fundamentally and perpetually flawed (Volker et al. 2020." This is so because this logic "fails to account for the fact that demand for vehicle travel is 'elastic' . . .").

²⁰ FINAL EIR/EA at 42.

²¹ Exhibit 5, CALTRANS, COMMUNITY IMPACT MEMORANDUM FOR THE SOUTH FRESNO STATE ROUTE 99 INTERCHANGE PROJECT 10 (Aug. 3, 2020) [hereinafter "COMMUNITY IMPACT MEMORANDUM"].

community of Calwa, established the same year as the City of Fresno and home to over 10,000 residents, sits just 0.85 miles from the Project’s North Avenue interchange. The unincorporated community of Malaga, established in 1883 and now home to over 2,000 residents, is only one mile from each of the North Avenue and American Avenue interchange Project sites. The vast majority of residents (92% in Calwa and 95% in Malaga) are persons of color and median household income in Calwa hovers under \$50,000 per year – the result of over a century of state-sponsored discrimination in financial services, zoning, and land use.²² The Nuevo Lago Mobile Home Park (formerly Shady Lakes) is under a mile from the Project’s American Avenue interchange site. Flamingo Mobile Home Lodge and Mobile Home Park sit immediately next to Route 99 at the Cedar Avenue interchange, between the North and American Avenue interchange sites. The cherished Calwa Park, recently restored and under renovation, sits 1.5 miles from the Project. The 1,400-bed County Juvenile Justice Campus directly abuts the Project’s American Avenue interchange site. Numerous other neighborhoods, parks, schools, places of worship, and community-serving uses make South Fresno a rich and thriving if historically marginalized residential area. South Fresno is a community that deserves recognition, respect, social and economic investment, and uplift – not to be ignored and cast aside for the sake of industrial growth.

In sum, the proposed conformity determination is fatally flawed for a host of reasons. These include, but are far from limited to, Caltrans’ many material mischaracterizations of the Project and its erasure of people and human capital in the Project area.

Among other things: The conformity determination lacks the quantitative hot-spot analysis required by the transportation conformity regulations for projects of air quality concern like this one. 40 C.F.R. §§ 93.116(a); 93.123(b). It differs radically from the much smaller-scale South Fresno interchange projects included in the Regional Transportation Plan and Federal Transportation Improvement Program on which Caltrans’ conformity analyses rely. 40 C.F.R. § 93.115(b)-(c). It is flatly inconsistent with the purpose of state implementation plans to achieve expeditious attainment for PM2.5 and ozone pollution in the San Joaquin Valley – the only air basin in the country in “severe” nonattainment for PM2.5 and only one of three air basins nationwide in “extreme” nonattainment for ozone. 42 U.S.C. § 7506(c)(1)(A). It is inconsistent with the purpose of the state plan to maintain air quality standards for PM10, which the San Joaquin Valley is currently violating. *Id.* As shown by Caltrans’ own data, it will cause and contribute to new air quality violations, increase the severity of existing ones, and make achieving attainment for ozone and PM2.5 harder and slower. 42 U.S.C. § 7506(c)(1)(B). It is premised on documents that failed – wildly – to inform the public and interagency consultation partners of the true purpose, nature, and air quality impacts of the Project and their implications for transportation conformity so as to permit intelligent consultation and informed agency decision-making. 40 C.F.R. § 93.105(a), (e). And it flies in the face of the U.S. Department of Transportation’s repeated promises to ensure that “[i]ndividuals and communities have a greater voice in transportation decisions affecting them,”²³ to prioritize projects that “[i]ncrease social

²² See LEE AND PATTERSON EXPERT REPORT at 1-3.

²³ U.S. DEPT. OF TRANSPORTATION, EQUITY ACTION PLAN 8 (Jan. 2022), https://www.transportation.gov/sites/dot.gov/files/2022-04/Equity_Action_Plan.pdf; See also CALTRANS, EQUITY STATEMENT (Dec. 10, 2020), <https://dot.ca.gov/-/media/dot-media/programs/equal-employment/documents/currently-uploaded/caltransequitystatement121020a11y.pdf> (committing to “meaningfully engage communities most impacted by structural racism in the creation and implementation of the programs and

and economic opportunity for disadvantaged and underserved communities,”²⁴ and to “maximize use of resources to facilitate delivery of projects that will provide benefits to communities with EJ concerns.”²⁵ As Dr. Lee and Dr. Patterson explain, “[t]his project is yet another in a long history of discriminatory transportation practices in Fresno that maintain segregated spaces and concentrate people of color and low-income neighborhoods with polluting industry.”²⁶

To comply with the law, FHWA must vacate its October 2022 conformity determination and the flawed Air Quality Conformity Analysis on which it rests. It must require Caltrans to go back to the drawing board, faithfully disclosing the full scope of the Project, its connections to planned industrial development, its expected air quality impacts, and their consequences for South Fresno residents and transportation conformity. It must require a quantitative hot-spot analysis to ascertain the Project’s conformity with national ambient air quality standards for particulate matter and assess its consistency with the state plan to get the San Joaquin Valley out of extreme violation of ozone standards. And it must redo consultation with the public and with interagency consultation partners based on this accurate Project portrayal.

While FHWA *must* do all this, it *should* do much more. To stand up to its own equity commitments, FHWA should work with Caltrans to set aside this damaging Project and meaningfully engage the community in developing an alternative that will bring real benefit to South Fresno. This alternative should focus on reconnecting communities historically severed by the construction of State Route 99 through South Fresno rather than further dividing them. It should constrain heavy-duty truck traffic rather than induce more of it and ensure that diesel trucks are routed away from residential areas rather than through them. It should invest in real public transit, bike, and pedestrian infrastructure for South Fresno residents rather than superficial overlays onto a Project built for trucks not people. And it should work with Caltrans to ensure that this visioning process is done *with* rather than *against* the South Fresno community.

COMMENTING PARTIES

A. Friends of Calwa, Inc.

Friends of Calwa, Inc. (“Friends of Calwa”) is a California non-profit organization headquartered in Fresno County in the community of Calwa. Located at the southern edge of the City of Fresno, Calwa was established in 1885 and named after the California Wine Association, which produced local wines from a nearby vineyard. From the site of the former California Wine Association brick winery, which has since crumbled, a resident of Calwa can see the skyline of downtown Fresno and imagine the social and economic opportunities that have not been available in their heavily industrialized neighborhood. In the absence of government

projects that impact their daily lives by creating more transparent, inclusive, and ongoing consultation and collaboration processes”).

²⁴ U.S. DEPT. OF TRANSPORTATION, EQUITY ACTION PLAN: 2023 UPDATE, at 20 (Sept. 2023), <https://www.transportation.gov/sites/dot.gov/files/2023-12/2023%20update%20to%20the%20DOT%20Equity%20Action%20Plan.pdf>.

²⁵ Pete Buttigieg, *Policy Statement on Reducing Negative Impacts of Transportation Projects on Communities with Environmental Justice Concerns (Including Disadvantaged Communities and Communities with Significant Transportation Insecurities)* (Mar. 2024), https://www.transportation.gov/sites/dot.gov/files/2024-06/Final_for_OST-S3-231213-001_Policy_Statement_S1_Signed.pdf.

²⁶ LEE AND PATTERSON EXPERT REPORT at 1.

investment in community-serving services and infrastructure, neighbors in the community of Calwa have developed a strong history of organizing and supporting each other in their fight to improve their community for current and future generations.

Following this tradition of neighbors helping neighbors, Friends of Calwa was formed in 2009 by a group of Calwa neighbors who came together with the vision that all people, regardless of income level, cultural background, or political persuasion, are entitled to live in neighborhoods that nurture their development. Friends of Calwa brings resources and people together to foster a healthy and thriving Calwa, where all people have access to quality education, good jobs, healthy food, public transportation, housing, recreation and parks, retail, meaningful civic engagement, and the opportunity to enjoy artistic, spiritual, and cultural amenities. In service of this mission, Friends of Calwa works to promote environmental health and justice in Calwa, including by advocating before local, state, and federal agencies to protect the health and environment of the local community from harmful industrial development and heavy traffic and from resulting toxic pollution.

As an advocate for and staffed and led by residents of Calwa and surrounding neighborhoods, Friends of Calwa has been deeply engaged in efforts to correct the lack of engagement by Caltrans and FHWA with the South Fresno community and center the community's interests in the agencies' decision-making on this Project. Friends of Calwa, for instance, hosted meetings with Caltrans at its location on East Jensen Avenue in April and August 2022, at which residents and staff expressed concerns that the Project would spur more industrial development, generate more truck traffick, and worsen air quality in South Fresno. When Caltrans and FHWA failed to account for the interests of South Fresno residents and the Project's impacts on their communities and discarded residents' concerns, Friends of Calwa sued the agencies in state and federal court challenging their approvals of the Project, the adequacy of their environmental analyses, the lack of meaningful public engagement, and the Project's impacts on residents' civil rights and access to safe and affordable housing.

B. Fresno Building Healthy Communities

Fresno Building Healthy Communities ("Fresno BHC") is a California nonprofit organization headquartered in the City of Fresno. Fresno BHC's mission is to foster thriving communities where all children and families can live healthy, safe, and productive lives. Fresno BHC is led by and works for the rights of people of color, as well as for the benefit of all Fresno County residents. Fresno BHC works in close partnership with community residents, young people, and community and faith-based organizations to advance its mission. Fresno BHC brings attention and resources to Fresno communities and neighborhoods that need it most, including Calwa and Malaga. Many of Fresno BHC's staff and its executive team members were born and raised in South Fresno and are directly impacted by the disparities affecting South Fresno.

In service of its mission, Fresno BHC endeavors to build community members' leadership and further community priorities relating to six focus areas: (1) advancing health equity across Fresno County; (2) ensuring access to safe and affordable housing for every community member; (3) uplifting neighborhoods through community-engaged economic development; (4) advocating for responsible land use practices which support the development of parks and sustainable businesses, rather than polluting facilities; (5) improving access to outdoor spaces; and (6) advocating for quality transportation options which result in safer streets, cleaner

air, and better public transit. One of Fresno BHC’s current projects is managing the state-funded renovation of the 70-year-old Calwa Park, which has provided generations of community members with valued recreational and outdoor experiences and is located approximately one-and-a-half miles from the Project site.

Fresno BHC has also expended significant organizational resources advocating for Caltrans and FHWA to meaningfully engage with South Fresno communities on the Project and in efforts to prevent the Project from going forward when it became clear that it would cause irreparable harm to South Fresno residents and neighborhoods. Fresno BHC, for instance, submitted comments to Caltrans on the Project’s Draft EIR/EA, raising serious concerns with the many erroneous assumptions in Caltrans’ analyses, Caltrans’ failure to consider the Project’s relationship to planned industrial development and its effects on inducing more diesel truck traffic, Caltrans’ failure to acknowledge the existence of residential communities in the Project area, and the agency’s failure to meaningfully consider the Project’s air quality and other impacts on South Fresno residents. When Caltrans and FHWA failed to correct the many flaws in their analyses, Fresno BHC joined with Friends of Calwa to sue the agencies in state and federal court.

FACTUAL AND LEGAL BACKGROUND

I. Factual Background

A. The Project’s Setting Amidst Overburdened South Fresno Communities of Color

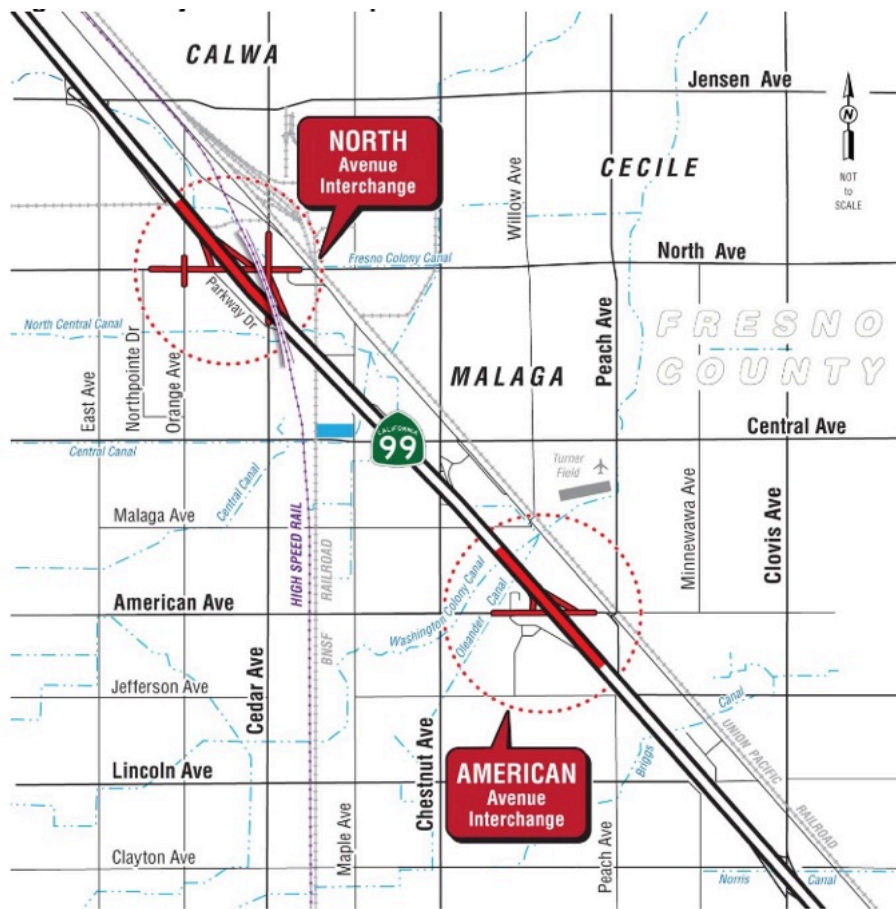
The Project expands the section of State Route 99 from North to American Avenues in the heart of South Fresno – a vibrant residential area with City of Fresno neighborhoods and unincorporated communities whose rich histories span more than a century, predating the City of Fresno. Tens of thousands of residents live within two miles of the Project site, where their health and safety are closely tied to levels of particulate matter and other air pollution emitted by cars and heavy-duty trucks traversing State Route 99 and traveling through local roadways connected at the North and American Avenue interchanges. South Fresno residents rely on schools, local small businesses, parks, places of worship, and other vital community infrastructure that will be adversely impacted by air pollution and traffic resulting from the Project.

\\

\\

\\

Figure 1: Map of interchanges targeted for expansion under the Project²⁷



The historic residential community of Calwa, established the same year as the City of Fresno, is among the South Fresno communities most directly threatened by the Project. The majority of Calwa – which encompasses Census tracts 12.01 and 12.02 – is located in unincorporated Fresno County, although portions were incorporated by the City of Fresno between 1947 and the 1990s. According to 2020 U.S. Census records, the total population of Calwa is approximately 10,697 residents.²⁸ Popular taquerias, markets, and other community-serving businesses and centers (including Friends of Calwa) line East Jensen Avenue in the heart of Calwa, located just 0.85 miles north of the Project’s North Avenue interchange expansion site. Six hundred students attend Calwa Elementary School, which serves Kindergarten through Sixth Grade and is located only one mile from the North Avenue interchange.²⁹ Since 1955, residents have recreated at Calwa Park, located about 1.5 miles away from the North Avenue

²⁷ FINAL EIR/EA at 4 fig. 1-2 (Project Location Map).

²⁸ The community of Calwa encompasses the entirety of Census tracts 12.01 and 12.02, which have a total population of 5,944 and 4,753 residents, respectively, according to 2020 Census records. The community of Calwa is larger than the unincorporated “census designated place” of Calwa, which has 1,776 residents (545 households), according to 2020 Census records.

²⁹ Cal. Dep’t of Educ., *School Accountability Report Card*, <https://sarconline.org/public/print/10621666006126/2022-2023>.

interchange.³⁰ The Park is scheduled to receive a new pool, picnic area, and playground as a result of dedicated community-based advocacy to draw funds to the neighborhood.³¹ The community's houses of worship include St. Anthony Mary Claret Church, the Lao Evangelical Church, and the Calwa United Methodist Church all of which are located under two miles from the Project.

Malaga, which is home to over 2,000 residents, is an unincorporated residential community that sits between the Project's American Avenue and North Avenue interchange sites, approximately one mile from each interchange and less than half a mile from the Route 99 mainline.³² Established in 1883, Malaga was one of the original communities that formed along the Southern Pacific Railroad, and quickly gained a school district and post office.³³ In the 1960s, Malaga's drive-in theater, the Malaga Motor-In, brought in moviegoers from around the county.³⁴ The Malaga Elementary School, which has a 2022-23 student enrollment of 185 students, is located only 0.4 miles from the Route 99 mainline and just over one mile from the American Avenue interchange.³⁵ Among Malaga's community-serving infrastructure, the Malaga Community Park and Recreation Center, featuring a soccer pitch and outdoor swimming pool, and the Cristo Rey Catholic Church both lie in the middle of Malaga's residential area close to the highway.³⁶

Multiple additional communities lie within two miles of the Project. Nuevo Lago Mobile Home Park, formerly known as Shady Lakes, is home to 60 families and sits 0.9 miles southwest from the Project's American Avenue interchange site.³⁷ In March 2024, the residents of Nuevo Lago successfully concluded a five-year effort to buy the park from its prior corporate landlord and form a housing cooperative; the park is now jointly owned by residents who can set their own rent.³⁸ Flamingo Mobile Home Lodge and Mobile Home Park contain 84 homes and directly abut Route 99 at the Cedar Avenue interchange, between the North and American Avenue interchange sites. The community of Daleville, home to over 700 residents, sits approximately one mile southwest of the North Avenue interchange.³⁹ The rural residential community of Britten Avenue is located 1.6 miles southwest of the North Avenue interchange. Additional residential neighborhoods are located in the triangle between State Route 99 and State Route 41, as well as to the east of State Route 99.

³⁰ Calwa Recreation & Park District, *Calwa Master Plan*, <https://www.calwarecreation.org/calwa-park-master-plan> (last visited July 7, 2024).

³¹ *Id.*

³² Malaga encompasses Census tract 15, which has a total population of 2,129 residents, according to 2020 U.S. Census records. The Census denotes a portion of this Census tract as the Census Designated Place of Malaga, which comprises 884 of Malaga's residents (219 households), according to 2020 U.S. Census records.

³³ Catherine Morison Rehart et al., "*Celebrating the Journey*" *150 Years of Fresno County and Beyond* 39 (Fresno Cnty. Office of Educ., 2007).

³⁴ *Id.*

³⁵ Cal. Dep't of Educ., *Malaga Elementary School: 2022-2023 School Accountability Report Card* (Published During 2023-2024 School Year), <https://4.files.edl.io/020d/01/31/24/165623-aa101bfa-b372-4a53-96cb-1289d6d7271d.pdf>.

³⁶ See, e.g., Malaga Cnty. Water Dist., *Arriaga Community Center*, <https://www.malagacwd.org/arriaga-community-center> (last visited July 7, 2024).

³⁷ See Madi Bolanos, *To Fight Rising Rents, These Fresno County Residents Bought Their Mobile Home Park*, KQED (Mar. 1, 2024), <https://www.kqed.org/news/11977464/to-fight-rising-rents-these-fresno-county-residents-bought-their-mobile-home-park>.

³⁸ *Id.*

³⁹ Nextdoor, *Daleville, Fresno*, <https://nextdoor.com/neighborhood/daleville--fresno--ca/> (last visited July 10, 2024).

South Fresno residents are served by an array of places of worship, schools, and other sensitive land uses in close proximity to the Project sites. These include the Sikh Temple Gurdawara Nanaksar Sahib (one mile from the North Avenue interchange), Orange Elementary School (1.2 miles from the North Avenue interchange), and West Fresno Elementary School and West Fresno Middle School (1.8 miles from the North Avenue interchange). In addition, a 1,400-bed juvenile detention facility, the Juvenile Justice Campus, lies just 300 yards (0.17 miles) from the Project’s American Avenue interchange site. Minors awaiting their court dates and court action reside on the campus 24 hours a day, seven days a week, where they also receive educational and other programming.⁴⁰

Calwa, Malaga, and the broader South Fresno community have been shaped by a long history of state-sponsored segregation and de jure discrimination in land use, transit infrastructure, housing, and financing practices.⁴¹ The City of Fresno developed, and segregated, along a railroad line that cuts across the west side of city, running diagonally from northwest to southeast. State Route 99 was later constructed to parallel the track, reinforcing the physical and social divide. At an 1873 town meeting, Fresno’s white residents agreed not to rent, sell, or lease any land east of Fresno’s railroad tracks to Chinese immigrants, beginning a pattern of segregating low-income migrants in west and south Fresno, which persists today.⁴² When the City of Fresno incorporated twelve years later, its boundaries were drawn to exclude South Fresno and its largely minority residents, thereby preventing the extension of essential municipal services like water and sewage into South Fresno communities.⁴³ The City of Fresno has since annexed parts of South Fresno. But most of Calwa, all of Malaga, and the majority of South Fresno residential neighborhoods remain unincorporated.⁴⁴

The state-sponsored discriminatory financing practice known as “redlining” furthered segregation in South Fresno. A redlining map issued in 1936 by the Home Owners’ Loan Corporation (“HOLC”), an agency created by the Roosevelt Administration to refinance home mortgages and expand home ownership opportunities, designated neighborhoods in the south and west of the City of Fresno as poor credit risks for home ownership because, according to HOLC, they were home to “inharmonious racial groups.”⁴⁵ The maps shaded these mixed-race and minority neighborhoods red and yellow to illustrate their high risk for household lending. In reliance on such maps, public and private financing entities refused to insure mortgages for homebuyers in communities deemed a poor credit risk, suppressing home ownership, housing opportunities, and accumulation of capital in communities of color.⁴⁶ Modern-day indices of

⁴⁰ County of Fresno, *Juvenile Justice Campus*, <https://www.fresnocountyca.gov/Departments/Probation/Juvenile-Justice-Campus> (last visited July 10, 2024).

⁴¹ See LEE AND PATTERSON EXPERT REPORT at 1-2.

⁴² Reis Thebault, *Fresno’s Mason-Dixon Line*, *The Atlantic* (Aug. 20, 2018), <https://www.theatlantic.com/politics/archive/2018/08/fresnos-segregation/567299/>.

⁴³ City of Fresno Plan. and Dev. Dep’t, *City of Fresno Annexation History* (Feb. 2021), <https://www.fresno.gov/wp-content/uploads/2023/03/Annexation-History.pdf>

⁴⁴ *Id.*

⁴⁵ CalEPA, *Pollution and Prejudice: Redlining and Environmental Injustice in California* (Aug. 16, 2021), <https://storymaps.arcgis.com/stories/f167b251809c43778a2f9f040f43d2f5>.

⁴⁶ *Id.*

social vulnerability and pollution burdens closely correlate with historically redlined communities.⁴⁷

State Route 99 has cemented the segregation of South Fresno and compounded its traffic and pollution burdens.⁴⁸ In the 1950s and 60s, the State of California, supported by the City of Fresno, constructed Route 99 to run along and through Fresno’s low-income and minority neighborhoods, demolishing 20 blocks of homes and businesses and severing communities from each other and the public and private resources of downtown.⁴⁹ Agency planners saw the highway “as a tool to achieve the urban renewal goal of ‘slum’ clearance” and used urban renewal funding to support its development.⁵⁰ Paralleling the historic railroad, the highway locked in the physical and economic divide between whiter and more affluent communities to the northeast, and lower-income communities of color in West and South Fresno. According to a report by the Federal Reserve Bank of San Francisco, “[t]he highway – described by one former Fresno County Board of Supervisors member as ‘Fresno’s Berlin Wall’ – physically cut off the neighborhood from the northeasterly growth in Fresno that was to occur over the next several decades.”⁵¹

This long history of segregation explains the demographic and socioeconomic divide between South and North Fresno today. South Fresno comprises almost entirely residents of color, whereas the majority of North Fresno residents identify as white. For instance, according to the 2022 American Community Survey, 96.8% of Malaga residents and 88.6% of Calwa residents identify as Hispanic or Latino, and 98% of Malaga residents and 92% of Calwa residents identify as non-white.⁵² By contrast, in a representative Northeast Fresno census tract (Census Tract 6019004405), only 23% of residents identify as Hispanic or Latino and only 37% as non-white.⁵³

Similar patterns appear by income. The median household income in Malaga is just above \$60,000 and in Calwa just under \$50,000.⁵⁴ By contrast, the median income in the

⁴⁷ Exhibit 9, Naomi Cytron, *The Enduring Challenge of Concentrated Poverty in America: Case Study of Fresno, California*, Federal Reserve Bank of San Francisco at 8 (Apr. 2009), https://www.frbsf.org/community-development/wp-content/uploads/sites/3/fresno_case_study.pdf [“Federal Reserve Fresno Study”].

⁴⁸ See LEE AND PATTERSON EXPERT REPORT at 1-2 (“Construction of SR 99 concretized racial borders in the City of Fresno, which had been established through discriminatory race-based planning processes, such as racially restrictive covenants, zoning, and redlining.”).

⁴⁹ Federal Reserve Fresno Study at 8.

⁵⁰ LEE AND PATTERSON EXPERT REPORT at 2.

⁵¹ Federal Reserve Fresno Study at 8.

⁵² See American Community Survey Demographic and Housing Estimates, Calwa, <https://data.census.gov/table/ACSDP5Y2022.DP05?q=calwa> (last visited July 11, 2024); American Community Survey Demographic and Housing Estimates, Malaga, <https://data.census.gov/table/ACSDP5Y2022.DP05?q=malaga> (last visited July 11, 2024).

⁵³ Cal. Office of Env’t Health Hazard Assessment, *CalEnviroScreen 4.0 Indicator Maps*, <https://experience.arcgis.com/experience/ed5953d89038431dbf4f22ab9abfe40d/page/Indicators/> (referencing Census Tract 6019004405) (last visited July 12, 2024).

⁵⁴ United States Census Bureau Profile, Malaga, https://data.census.gov/profile/Malaga_CDP,_California?g=160XX00US0645232 (last visited July 12, 2024); United States Census Bureau Profile, Calwa, https://data.census.gov/profile/Calwa_CDP,_California?g=160XX00US0610032 (last visited July 12, 2024).

Northeast Fresno census tract discussed above is \$140,000.⁵⁵ Forty percent of Calwa residents earn incomes that fall below the poverty line – nearly 27 times the rate in Northeast Fresno.⁵⁶ Both Calwa and Malaga are designated as “disadvantaged unincorporated communities” under California Senate Bill 244, meaning that they have “an annual median household income [] that is less than 80 percent of the statewide annual median household income.” Cal. Water Code § 79505.5(a).

Children in Calwa and Malaga face high rates of household poverty. According to 2023-2024 school year from by the California Department of Education, 92.6% of students at Malaga Elementary School and 97.8% of students at Calwa Elementary School qualify for free or reduced-price meals relative to 75.8% of students in the County and 61.7% of students in the state.⁵⁷ In comparison, 36.9% of children who attend Fort Washington Elementary School in Northeast Fresno and 73.6% of children who attend River Bluff Elementary School in Northwest Fresno qualified for free or reduced-priced lunch last school year.⁵⁸ And over 40% of Calwa residents are children – nearly double the statewide average.⁵⁹

Layered on top of this pattern of de jure racial segregation, the City and County of Fresno have, for over 100 years, purposefully concentrated polluting industry and related heavy-duty truck traffic amidst lower-income South Fresno communities of color. In 1918, for instance, the City of Fresno’s first general plan zoned South Fresno for both industry and affordable housing, concentrating the City’s poorest residents together with polluting industrial land uses. These efforts continue today. The County of Fresno’s 2021 Draft General Plan expressly targeted Malaga and Calwa as the “focus of potential new or redeveloped industrial areas.”⁶⁰ The Draft General Plan drew a sharp rebuke from the California Attorney General’s Office, which concluded that “[t]he County’s ‘clear commitment’ and ‘unequivocal directive’ to prioritize Malaga and Calwa for new or redeveloped industrial sites in light of the known pollution burdens, health risks and population demographics raises civil rights and environmental justice

⁵⁵ U.S. Census Bureau Profile, Census Tract 44.05, https://data.census.gov/profile/Census_Tract_44.05;_Fresno_County;_California?g=1400000US06019004405 (last visited July 12, 2024).

⁵⁶ Compare Calwa Census Bureau Profile, *supra* note 54 with Census Tract 44.05 Census Bureau Profile, *supra* note 55.

⁵⁷ Cal. Dep’t of Educ., Selected School Level Data – Malaga Elementary-Fowler Unified (2023-2024), <https://dq.cde.ca.gov/dataquest/Cbeds4.asp?FreeLunch=on&cSelect=Malaga%5EElementary--Fowler%5EUnified%5E--1062158-6006043&cChoice=SchProf2&cYear=2023-24&cLevel=School&cTopic=FRPM&myTimeFrame=S&submit1=Submit> (last visited July 11, 2024); Cal. Dep’t of Educ., Selected School Level Data, Calwa Elementary-Fresno Unified (2023-2024), <https://dq.cde.ca.gov/dataquest/Cbeds4.asp?FreeLunch=on&cSelect=Calwa%5EElementary--Fresno%5EUnified%5E--1062166-6006126&cChoice=SchProf2&cYear=2023-24&cLevel=School&cTopic=FRPM&myTimeFrame=S&submit1=Submit> (last visited July 11, 2024).

⁵⁸ Cal. Dep’t of Educ., Selected School Level Data, Fort Washington Elem.-Clovis Unified (2023-2024), <https://dq.cde.ca.gov/dataquest/Cbeds4.asp?FreeLunch=on&cSelect=Fort%5EWashington%5EElem--Clovis%5EUnified%5E--1062117-6005862&cChoice=SchProf2&cYear=2023-24&cLevel=School&cTopic=FRPM&myTimeFrame=S&submit1=Submit> (last visited July 11, 2024); Cal. Dep’t of Educ., Selected School Level Data, Red Bluff Elementary—Central Unified, <https://dq.cde.ca.gov/dataquest/Cbeds4.asp?FreeLunch=on&cSelect=River%5EBluff%5EElementa--Central%5EUnified--1073965-6120521&cChoice=SchProf2&cYear=2023-24&cLevel=School&cTopic=FRPM&myTimeFrame=S&submit1=Submit> (last visited July 11, 2024).

⁵⁹ Calwa Census Bureau Profile, *supra* note 54.

⁶⁰ County of Fresno, *Fresno County General Plan Policy Document: General Plan Review and Revision Public Review Draft 2-5* (July 2021).

concerns.”⁶¹ Despite this rebuke, the County is continuing with plans to develop a nearly 3,000.-acre Business and Industrial Campus (the “Industrial Park”) in predominantly agricultural land in Malaga, adjacent to the American Avenue interchange.⁶² In a similar vein, the City’s Draft South Central Specific Plan, issued in June 2024, proposes to facilitate buildout of approximately 18.5 million square feet of industrial uses and 10 million square feet of commercial/office uses in South Central Fresno, in and around Calwa and in the triangle between Highway 41 and Route 99 adjacent to the North Avenue interchange.

At the same time they have targeted South Fresno communities for polluting industry and associated burdens, state and local governments have avoided investing in community-serving infrastructure for South and West Fresno residents. Residents in these areas report “unrelenting disinvestment, neglect and a lack of representation,” which “have held back generations of black and brown residents.”⁶³ Government neglect is particularly acute in South Fresno communities excluded from Fresno’s municipal boundaries and the extension of essential municipal services like water, sanitation, and parks. Disadvantaged unincorporated communities in Fresno County and throughout the Central Valley are, for instance, disproportionately likely to suffer from uneven access to community drinking water systems as well as unsafe drinking water.⁶⁴ As one example of this service neglect, the Fresno City Council in February 2024 finally took the first steps to study and eventually connect the unincorporated Britten Avenue community to municipal water and sewer infrastructure after recent testing uncovered unsafe levels of uranium and nitrates in the drinking water of multiple Britten Avenue households, likely the result of septic tanks and fertilizer runoff.⁶⁵ In a statement that could characterize the whole of South Fresno, U.S. Congressman Jim Costa of Fresno recently recounted that “Calwa has a long history but, unfortunately, part of that history is one of neglect and inequities that reflect too many parts of our county.”⁶⁶

Government failure to invest in community-serving infrastructure for South Fresno residents is perhaps most visible in the transportation system. According to UCLA’s California Transportation Disparities Mapping project, 0% of Calwa residents take public transit or walk to work.⁶⁷ And those who try navigate extremely unsafe conditions, including “broken streets,” “battered” or nonexistent sidewalks, frequent and large potholes, and poorly designed

⁶¹ Letter from Robert Swanson, Deputy Att’y Gen., Cal. Dep’t of Just., and Mari Mayeda, Deputy Att’y Gen., Cal. Dep’t of Just., to Steven E. White, Director, Fresno Cty. Dept. of Public Works and Plan. 2 (Mar. 29, 2022), <https://oag.ca.gov/system/files/media/sb1000-letter-fresno-county.pdf>.

⁶² See section I.C., Factual and Legal Background, *infra*.

⁶³ Manuela Tobias, *How Fresno Is Confronting Its History of Racism* (June 17, 2020) <https://calmatters.org/california-divide/2020/06/west-fresno-racism-black-communities/>.

⁶⁴ UC DAVIS CENTER FOR REGIONAL CHANGE, THE STRUGGLE FOR WATER JUSTICE IN CALIFORNIA’S SAN JOAQUIN VALLEY: A FOCUS ON DISADVANTAGED UNINCORPORATED COMMUNITIES (FEB. 2018) https://regionalchange.ucdavis.edu/sites/g/files/dgvnsk986/files/inline-files/The%20Struggle%20for%20Water%20Justice%20FULL%20REPORT_0.pdf.

⁶⁵ City of Fresno Legislative Center, attach. 1—Resolution, <https://fresno.legistar.com/LegislationDetail.aspx?ID=6516038&GUID=563E284C-9773-4D37-8993-6D68488349DE&Options=&Search=> (last visited July 10, 2024); Juliana Morano, *Outdoor fires, unsafe drinking water, and more money – and power – for the Fresno City Attorney* (Feb. 23, 2024) <https://fresnoland.org/2024/02/23/outdoor-fires-unsafe-drinking-water-and-more-money-and-power-for-the-fresno-city-attorney/>.

⁶⁶ Tobias, *supra* note 63.

⁶⁷ UCLA, California Transportation Disparities Mapping Tool, <https://knowledge.luskin.ucla.edu/2541-2/> (last visited July 10, 2024).

intersections.⁶⁸ The steady flow of heavy-duty trucks traveling from Route 99 through residential streets compounds safety issues for residents. Just this past August, a bicyclist was struck and killed by a big-rig outside Calwa Elementary School.⁶⁹

State and federal agencies have begun to formally acknowledge their role in creating and entrenching segregation and environmental injustice through transportation planning. At the U.S. Department of Transportation, Secretary of Transportation Buttigieg has acknowledged that “past infrastructure investments served to divide rather than connect or create shared prosperity.”⁷⁰ Caltrans’ 2020 Equity Statement formally acknowledges that the agency’s transportation planning and construction “quite literally put up barriers, divided communities, and amplified racial inequities, particularly in our Black and Brown neighborhoods.”⁷¹ However, despite high-level embrace of equity-oriented planning, recent research has shown that the decentralized leadership of individual transportation projects allows local government economic priorities to override expressed equity commitments.⁷² The Project is a perfect example of this phenomenon.

B. Existing South Fresno Air Quality Burdens and Adverse Health Impacts

This long history of discriminatory land use and transportation planning has produced air quality in South Fresno that is among the very worst in the state. As shown in Figures 2 and 3 below, City and County zoning maps designate much of South Fresno for heavy industry served by trucks accessing industrial facilities from State Route 99.⁷³ Existing large-scale industrial sources in the area include a biomass power facility, a gasoline pipeline terminal, a steel product manufacturer, meat rendering plants, slaughterhouses, and numerous warehouse facilities. These and other industrial facilities generate significant diesel truck traffic in South Fresno. As of 2022, around 19,000 trucks passed the intersection of Route 99 and North Avenue each day – more daily truck traffic than 97% of locations for which Caltrans collects data.⁷⁴ All of the truck traffic, in combination with heavy industry, generates dangerous levels of particulate matter (PM2.5 and PM10) and ozone pollution, as well as carbon monoxide, nitrogen oxide (NOx), volatile organic compounds (VOCs), and Toxic Air Contaminants.

⁶⁸ See, e.g., House of Representatives, *This Community with a “History of Neglect” will Get \$7 Million in Street/Sidewalk Facelift* (referencing Juan Esparaza Loera, *This Community with a “History of Neglect” will Get \$7 Million in Street/Sidewalk Facelift* (May 10, 2023), <https://www.fresnobee.com/article275204841.html>).

⁶⁹ Stephen Hawkins, *Man on Bike Killed by Big Rig in Fresno County Identified* (Aug. 22, 2023), <https://kmpf.com/news/local/man-on-bike-killed-by-big-rig-in-fresno-county-calwa-elementary-school-cedar-avenue-jensen-kaviland>.

⁷⁰ EQUITY ACTION PLAN: 2023 UPDATE, *supra* note 24; Buttigieg, *supra* note 25.

⁷¹ Caltrans, *Caltrans Equity Statement* (Dec. 10, 2020), <https://dot.ca.gov/about-caltrans/equity-statement> (quoting Caltrans, *Secretary David S. Kim Issues Restatement on Racial Equity, Justice and Inclusion in Transportation* (June 12, 2020), <https://calsta.ca.gov/press-releases/2020-06-12-statement-on-racial-equity>); see also Exhibit 20, Caltrans, *Race and Equity Action Plan*.

⁷² Exhibit 26, Amy Lee, *The Policy and Politics of Highway Expansions* (2023), <https://escholarship.org/uc/item/13x3n8zr>.

⁷³ City of Fresno GIS Viewer, <https://experience.arcgis.com/experience/2b2f1f8322fb426db97ed50fc1693786> (last visited June 11, 2024); Cnty. of Fresno—Zoning, <https://gisportal.co.fresno.ca.us/portal/apps/webappviewer/index.html?id=b921843d343d4df998b5b3c6a301756a> (last visited June 11, 2024).

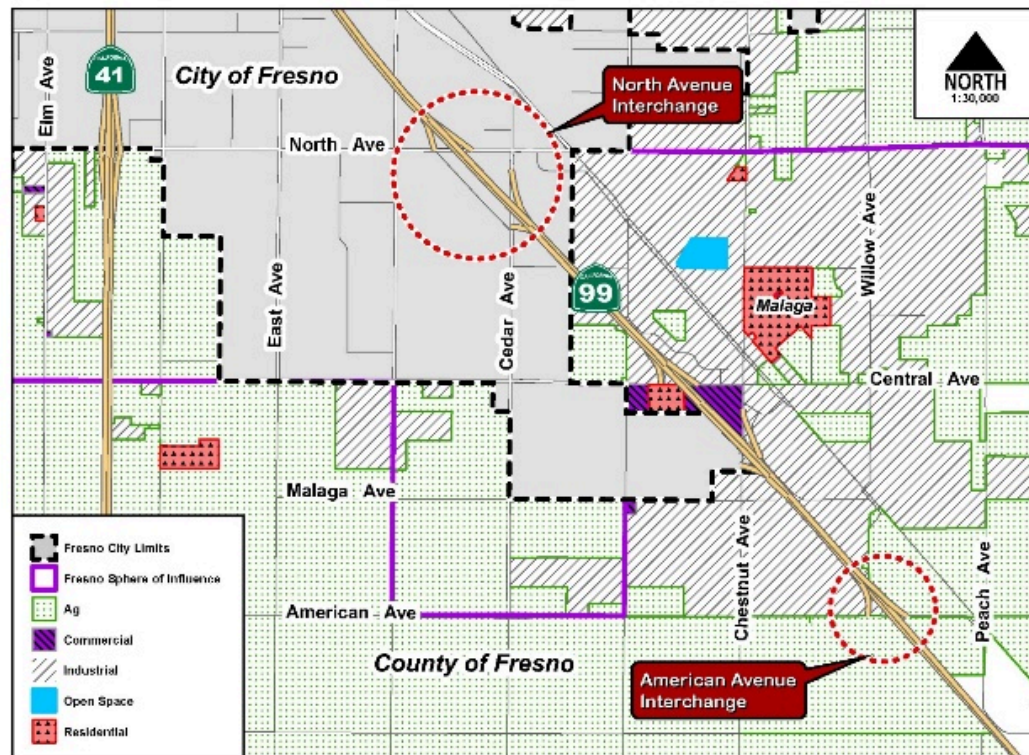
⁷⁴ Caltrans, *Traffic Census Program*, <https://dot.ca.gov/programs/traffic-operations/census> (analysis of 2022 AADT data) (last visited July 10, 2024).

Figure 2: City of Fresno Zoning Map



Source: City of Fresno online zoning map (2020).

Figure 3: County of Fresno Zoning Map



Source: Fresno County online zoning map (2020).

Ozone is a product of chemical reactions, which forms when emissions from vehicles and industrial facilities, including NO_x and VOCs, combine with sunlight.⁷⁵ It is also the main component of smog.⁷⁶ PM_{2.5} and PM₁₀ are any materials in the air with a diameter less than or equal to 2.5 or 10 microns, respectively, and can include acids, chemicals, metals, soil, and dust.⁷⁷ PM_{2.5} and PM₁₀ are a direct product of tailpipe emissions; they also result from chemical reactions undergone by precursors like NO_x, also emitted by vehicles and industrial facilities.⁷⁸ Diesel exhaust is a direct contributor to PM_{2.5}, as it contains particulate matter less than one micron in diameter.⁷⁹ Diesel particulate matter (DPM) is a type of PM_{2.5} comprised of the solid material emitted in diesel exhaust derived from combustion engines in trucks, industrial operations, construction equipment and other sources. The California Air Resources Board has identified DPM as a Toxic Air Contaminant due to its carcinogenic properties.⁸⁰

Expansive stationary and mobile sources of air pollution combine with the unique topographical and meteorological conditions of the San Joaquin Valley, where Fresno is located, to exacerbate both concentrations and toxicity of these pollutants.⁸¹ The Valley has limited airflow year-round, and winter inversion further prevents pollutants from naturally dissipating into the atmosphere.⁸² The net effect of these conditions is to concentrate pollutants near their sources, promote formation of secondary species (e.g., NO_x into ammonium nitrate, a common form of PM_{2.5}), and chemically age organic carbons, increasing their relative toxicity.⁸³ As a result, the San Joaquin Valley has consistently fallen well short of national ambient air quality standards (“NAAQS”) for ozone and particulate matter adopted by the EPA under the Clean Air Act.

The Valley’s nonattainment of federal PM_{2.5} standards is particularly severe. For nearly a decade, the Valley has been the only air basin in the country that has never attained EPA’s 1997 annual PM_{2.5} standard.⁸⁴ Effective May 7, 2015, the EPA reclassified the San Joaquin Valley as a “serious” nonattainment area for the 1997 PM_{2.5} NAAQS.⁸⁵ The State submitted its

⁷⁵ San Joaquin Valley Air Pollution Control Dist., *2022 Plan the 2015 8-Hour Ozone Standard*, 1-1 (Dec. 15, 2022) [hereinafter “2022 Ozone Plan”] <https://ww2.valleyair.org/media/q55posm0/0000-2022-plan-for-the-2015-8-hour-ozone-standard.pdf>.

⁷⁶ American Lung Association, *Ozone*, <https://www.lung.org/clean-air/outdoors/what-makes-air-unhealthy/ozone> (last visited July 10, 2024).

⁷⁷ San Joaquin Valley Air Pollution Control Dist., *2018 Plan for the 1997, 2006, and 2012 PM_{2.5} Standards*, at 3-1 (Nov. 15, 2018) [hereinafter “2018 PM_{2.5} Plan”] <https://www.valleyair.org/pmplans/documents/2018/pm-plan-adopted/2018-Plan-for-the-1997-2006-and-2012-PM2.5-Standards.pdf>.

⁷⁸ *Id.* at 3-10; Cal. Air Res. Bd., *Inhalable Particulate Matter and Health (PM_{2.5} and PM₁₀)*, <https://ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health> (last visited July 10, 2024).

⁷⁹ Cal. Air Res. Bd., *Overview: Diesel Exhaust & Health*, <https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health> (last visited July 10, 2024).

⁸⁰ *Id.* (“It is estimated that about 70% of total known cancer risk related to air toxics in California is attributable to DPM. Based on 2012 estimates of statewide exposure, DPM is estimated to increase statewide cancer risk by 520 cancers per million residents exposed over a lifetime.”).

⁸¹ 2022 Ozone Plan, *supra* note 75 at 2-1.

⁸² *Id.* at 2-1 – 2-3.

⁸³ *Id.* at 2-2

⁸⁴ U.S. EPA, PM_{2.5} (1997) Nonattainment Areas (data current as of June 30, 2024), <https://www3.epa.gov/airquality/greenbook/qnc.html>; *see also*,

81 Fed. Reg. 48350 (July 25, 2016); 80 Fed. Reg. 40911 (July 14, 2015); 78 Fed. Reg. 63881 (Oct. 25, 2013).

⁸⁵ 88 Fed. Reg. at 45277.

2018 PM2.5 Plan in May 2019, over two years after its statutory deadline, and still met partial EPA disapproval.⁸⁶ This resulted in a conformity freeze in the San Joaquin Valley, meaning that only projects in the first four years of the most recent regional transportation plan and transportation improvement program can proceed and no new amendments to the plans or programs can be found to conform.⁸⁷ For its part, EPA has been successfully sued at least four times for unlawfully delaying mandatory action regarding PM2.5 plans for the Valley.⁸⁸

There has been effectively no improvement in annual PM2.5 readings in the Valley in the past decade. The Valley's design value from 2011-2013 was 18.1 $\mu\text{g}/\text{m}^3$, and the Valley's most recently released design value from 2020-2022 was 18.8 $\mu\text{g}/\text{m}^3$.⁸⁹ In 2022, a mild fire season, the Bakersfield-Golden monitor gave an annual value of 16.63 $\mu\text{g}/\text{m}^3$ ⁹⁰—well above the 15 $\mu\text{g}/\text{m}^3$ 1997 annual standard and even further above the current and soon-to-be-updated 2012 annual standard of 12 $\mu\text{g}/\text{m}^3$.⁹¹ As of the date of submittal of this comment, the San Joaquin Valley remains the only air basin in the country in “serious” non-attainment for the 1997 PM2.5 standard.⁹²

Similar conditions hold in the San Joaquin Valley for other criteria pollutants. The Valley is one of two air basins nationwide in extreme non-attainment for 8-hour ozone pollution (2015 standard),⁹³ one of three air basins in serious non-attainment for PM2.5 (2012 standard),⁹⁴ and in a maintenance area for PM10 pollution (1987 standard) under a “serious” designation.⁹⁵ The Valley's ozone nonattainment is particularly dire. The Valley experienced 120 days over federal ozone standards in 2020.⁹⁶ Design values for 8-hour ozone released just a month ago, on June 4, 2024, show that the Valley remains at .090 ppm, well above the 2015 NAAQS of .070 ppm.⁹⁷ Though the San Joaquin Valley is only under a maintenance plan for PM10 rather than in formal nonattainment status, it is currently violating the PM10 NAAQS and averages 4.4 estimated exceedances of the NAAQS – a higher number of exceedances than all but two air basins in maintenance nationwide.⁹⁸

⁸⁶ *Id.*

⁸⁷ 86 Fed. Reg. at 67341.

⁸⁸ *Sierra Club v. EPA*, 14-cv-04596-EMC (N.D. Cal. Jul. 16, 2015); *Comm. for a Better Arvin v. Wheeler*, No. 4:18-cv-05700-DMR (N.D. Cal. Oct. 24, 2018); *Ass'n of Irrigated Residents v. EPA*, No. 21-cv-00426-JST (N.D. Cal. Aug. 30, 2021); *Comité Progreso de Lamont v. EPA*, No. 3:21-cv-8733-WHA (N.D. Cal. Feb. 15, 2023).

⁸⁹ U.S. EPA, *PM2.5 Design Values, 2022* at Tbls. 1a & 3a, <https://www.epa.gov/air-trends/air-quality-design-values-report> (last visited July 11, 2024).

⁹⁰ *Id.* at tbl. 5a.

⁹¹ See 88 Fed. Reg. 5558 (Jan. 27, 2023).

⁹² U.S. EPA, *PM-2.5 (1997) Nonattainment Areas* (data current as of June 30, 2024), <https://www3.epa.gov/airquality/greenbook/qnc.html>;

⁹³ U.S. EPA, *8-Hour Ozone (2015) Nonattainment Areas* (data current as of June 30, 2024), <https://www3.epa.gov/airquality/greenbook/jnc.html>.

⁹⁴ U.S. EPA, *PM-2.5 (2012) Nonattainment Areas* (data current as of June 30, 2024), <https://www3.epa.gov/airquality/greenbook/knc.html>. No air basin is in worse than “serious” nonattainment for the 2012 PM2.5 NAAQS.

⁹⁵ U.S. EPA, *PM-10 (1987) Maintenance Areas (Redesignated from Nonattainment)* (data current as of June 30, 2024), <https://www3.epa.gov/airquality/greenbook/pmc.html>.

⁹⁶ 2022 Ozone Plan, *supra* note 75 at 2-16.

⁹⁷ U.S. EPA, *2023 Design Value Reports, 8-Hour Ozone* <https://www.epa.gov/air-trends/air-quality-design-values#report> (last visited July 7, 2024).

⁹⁸ U.S. EPA, *2023 Design Value Reports, PM10*, <https://www.epa.gov/air-trends/air-quality-design-values#report> (last visited July 11, 2024).

Mobile sources of pollution, particularly diesel trucks, are frequently cited as the single biggest obstacle preventing the Valley from meeting federal air quality standards. The Valley’s 2022 Ozone Plan emphasizes that “attainment of the health-based standards established under the Federal Clean Air Act is not viable without significant quantifiable and enforceable reductions in emissions from mobile sources that fall exclusively under federal jurisdiction such as interstate heavy-duty trucks.”⁹⁹ While emissions from stationary sources have improve across the Valley as a whole since the 1980s (though not necessarily in South Fresno, where industrial sources continue to expand), pollution from mobile sources, including trucks, has not improved since the mid-2010s.¹⁰⁰ As a result, “80% of the Valley’s remaining ozone and PM2.5 precursor emissions [come] from mobile sources,” according to the regional air district.¹⁰¹ The most recent PM2.5 plan for the Valley similarly notes that the Valley has reached the “point of diminishing returns from new regulations on stationary sources” and must instead focus on “mobile sources” such as cars and trucks.¹⁰²

South Fresno in particular experiences among the most degraded levels air quality in the whole of the Valley – and among the worst air quality of any census tract in California and the nation – due to concentrated diesel truck traffic and related local industrial operations.¹⁰³ CalEnviroScreen, a mapping tool provided by California’s Office of Environmental Health Hazard Assessment,¹⁰⁴ shows that the census tracts encompassing the Project area are in the 82nd to 85th percentiles for ozone pollution and the 96th to 98th percentiles for PM2.5 pollution in the state.¹⁰⁵ Beyond air quality burdens, CalEnviroScreen shows that South Fresno is exposed to among the highest concentrations of Groundwater Threats, Hazardous Waste, and Solid Waste Sites in the state. As a result of these and other environmental stressors, the communities of Calwa and Malaga and the broader Project area rank in the 99-100th percentiles for overall pollution burden among all census tracts in the state, and the 99-100th percentile for total cumulative impacts (combining pollution indices with indicators of social vulnerability).¹⁰⁶

The type of air pollution plaguing South Fresno causes short and long-term damage to the health of its residents. Even short-term exposure to ozone pollution can cause “chest pain, coughing, throat irritation, congestion, reduced lung function, and inflammation of the linings of the lung,” while “[r]epeated exposure may permanently scar lung tissue.”¹⁰⁷ Exposure to particulate matter can produce even more severe injury. Particles as large as 10 microns in diameter can enter the lungs, whereas PM2.5 is small enough to enter lung tissues and absorb

⁹⁹ 2022 Ozone Plan, *supra* note 75 at 3-35.

¹⁰⁰ *Id.* at 4-4

¹⁰¹ *Id.* at 3-35

¹⁰² 2018 PM2.5 Plan, *supra* note 77 at ES-1.

¹⁰³ See generally, Exhibit 21, University of California, Merced, *Fresno Community Environmental Health Impact Assessment* (Apr. 2024) (documenting disparities in South Fresno from exposure to emissions from diesel truck traffic).

¹⁰⁴ Cal. Office of Env’t Health Hazard Assessment, *CalEnviroScreen*, <https://oehha.ca.gov/calenviroscreen/about-calenviroscreen> (last visited July 10, 2024).

¹⁰⁵ Cal. Office of Env’t Health Hazard Assessment, *CalEnviroScreen 4.0 Indicator Maps*, <https://experience.arcgis.com/experience/ed5953d89038431dbf4f22ab9abfe40d/page/Indicators/> (referencing Census Tracts 6019001500, 6019001202 & 6019001201) (last visited July 10, 2024).

¹⁰⁶ Cal. Office of Env’t Health Hazard Assessment, *CalEnviroScreen 4.0*, https://experience.arcgis.com/experience/11d2f52282a54ccebcaac7428e6184203/page/CalEnviroScreen-4_0/, (referencing Census Tracts 6019001500, 6019001202 & 6019001201).

¹⁰⁷ 2022 Ozone Plan, *supra* note 75 at 1-1–1-2.

into the bloodstream.¹⁰⁸ “Numerous studies link PM2.5 to a variety of health problems, including aggravated asthma, increased respiratory symptoms (irritation of the airways, coughing, difficulty breathing), decreased lung function in children, development of chronic bronchitis, irregular heartbeat, non-fatal heart attacks, increased respiratory and cardiovascular hospitalizations, lung cancer, and premature death.”¹⁰⁹ Among other harmful subsets of PM2.5, diesel particulate matter is an established carcinogen.¹¹⁰ PM10 is similarly harmful. “Short-term exposures to PM10 have been associated primarily with worsening of respiratory diseases, including asthma and chronic obstructive pulmonary disease (COPD), leading to hospitalization and emergency department visits.”¹¹¹ Long-term exposure to PM10 is linked to higher rates of respiratory mortality¹¹² and has been found to be a more significant predictor of COVID-19 severity and mortality than asthma, diabetes, and obesity.¹¹³

Air quality burdens are clearly reflected in the health of South Fresno residents. For instance, Calwa and Malaga residents suffer from disproportionately high rates of asthma and heart disease. Calwa and Malaga are in the 94th and 93rd percentiles for asthma emergency department visits in California, respectively,¹¹⁴ and in the 71st and 73rd percentiles for heart attack emergency department visits.¹¹⁵ Calwa and Malaga residents also experience greater exposure to toxic air contaminants than residents in 98 and 93 percent of census tracts in the country, respectively.¹¹⁶

South Fresno residents are particularly vulnerable to poor air quality as a result of underlying health conditions and demographic factors, like the relatively young age of the population (over 40% of Calwa residents are under 18 years old). Children are uniquely sensitive to ozone, PM2.5, and PM10, as are people with lung diseases like asthma and adults with heart disease – both conditions that are overrepresented in South Fresno communities.¹¹⁷ A longitudinal study of children in Fresno has confirmed that prenatal and early childhood exposure closely correlate with degraded lung function for children growing up in the Valley.¹¹⁸ As a result of these and other stressors, residents in Calwa and Malaga have life expectancies lower than 88 percent of census tracts in the United States.¹¹⁹

¹⁰⁸ 2018 PM2.5 Plan, *supra* note 77 at 3-5.

¹⁰⁹ *Id.*

¹¹⁰ Cal. Air Res. Bd., *supra* note 79.

¹¹¹ Cal. Air Res. Bd., *supra* note 78.

¹¹² *Id.*; Jie Chen and Gerard Hoek, *Long-term exposure to PM and all-cause and cause-specific mortality: A systematic review and meta-analysis*, ENVIRON INT., Oct. 2020, <https://pubmed.ncbi.nlm.nih.gov/32703584/>.

¹¹³ Montse Marques, et al., *Long-term exposure to PM₁₀ above WHO guidelines exacerbates COVID-19 severity and mortality*, ENVIRON INT., Jan. 2022, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8519784/>.

¹¹⁴ Cal. Office of Env’t Health Hazard Assessment, *CalEnviroScreen 4.0* (reviewing asthma rates and incidence), <https://experience.arcgis.com/experience/ed5953d89038431dbf4f22ab9abfe40d/page/Indicators/?views=Asthma> (last visited July 10, 2024).

¹¹⁵ Cal. Office of Env’t Health Hazard Assessment, *CalEnviroScreen 4.0* (reviewing cardiovascular disease rates and incidence), <https://experience.arcgis.com/experience/ed5953d89038431dbf4f22ab9abfe40d/page/Indicators/?views=Cardiovascular-Disease> (last visited July 10, 2024).

¹¹⁶ U.S. Env’t Prot. Agency, *EPA EJ Screen* (Toxic Releases to Air; search for Calwa and Malaga), <https://ejscreen.epa.gov/mapper/> (last visited July 13, 2024).

¹¹⁷ 2018 PM2.5 Plan, *supra* note 77 at 3-5.

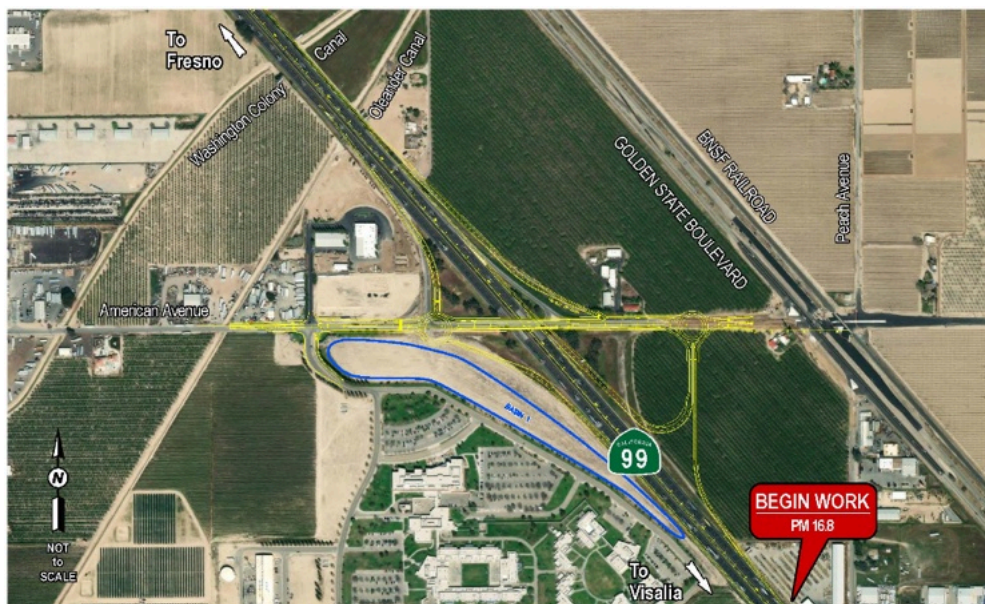
¹¹⁸ Andreas M Neophytou et al., *Associations between prenatal and early-life air pollution exposure and lung function in young children*, ENVIRON RES., Apr. 2023, at 1, 2.

¹¹⁹ *EPA EJ Screen*, *supra* note 115 (Health Indicators: Life Expectancy).

C. The Highway Interchange Expansion Project and its Threats to Air Quality

The Project, if it goes forward, will significantly worsen existing air quality burdens and poor health outcomes for South Fresno residents by inducing even more heavy-duty truck and car traffic and new and intensified industrial development. A joint project by Caltrans and FHWA, the Project would reconstruct and expand two existing interchanges connecting State Route 99 with American Avenue and North Avenue in South Fresno.¹²⁰ The existing interchanges are one-lane “half interchanges” meaning that each contains only a one-directional on- or off-ramp.¹²¹ The Project aims to replace these half interchanges with bidirectional “full interchanges,” adding two to four new ramps to each interchange,¹²² expanding the size of each interchange from one to four lanes through on- and off-ramp intersections,¹²³ adding new four-lane bridge overcrossings over the highway (in lieu of existing two-lane overcrossings),¹²⁴ together with other infrastructure, as depicted in Figures 4 and 5, below.¹²⁵ According to Caltrans, the Project is a key part of its “ultimate route concept” for State Route 99, which would expand the highway’s mainline from six to eight lanes – a 33% increase in capacity.¹²⁶

Figure 4: American Avenue Adopted “Hybrid” Alternative¹²⁷



¹²⁰ CALTRANS, DRAFT ENVIRONMENTAL IMPACT REPORT/ ENVIRONMENTAL ASSESSMENT: SOUTH FRESNO STATE ROUTE 99 CORRIDOR Project 5 (Sept. 2021) [hereinafter “DRAFT EIR/EA”].

¹²¹ *Id.*

¹²² Compare AIR QUALITY CONFORMITY ANALYSIS at 28-29 tbls. A-B (showing two ramps at North and American Avenue interchanges as of 2019 baseline) with *id.* at 30-31 tbl. F (showing six ramps at North Avenue interchange under adopted Alternative 2) and *id.* at 30-31 tbls. H-1 (showing four and six ramps at American Avenue interchange under Alternatives 1 and 2, respectively).

¹²³ FINAL EIR/EA at 13-14.

¹²⁴ *Id.*

¹²⁵ *Id.* at 11–12.

¹²⁶ *Id.* at 6.

¹²⁷ Notably, Caltrans adopted a new alternative for the American Avenue interchange expansion – the “Hybrid” Alternative – which was not disclosed in its conformity documentation or analyzed in the Project’s EIR/EA. This “Hybrid” Alternative is more expansive than the two alternatives analyzed, requiring conversion of 26.11 acres of land, relative to 21.72 acres for Alternative 1 and 14.91 acres for Alternatives 2. FINAL EIR/EA at 18 tbl. 1-4.

Figure 5: North Avenue Adopted Alternative 2



The overarching purpose of the Project is to expand capacity for heavy-duty truck traffic to flow between the highway and local roadways, accommodating planned and projected industrial buildout in the Project area. Caltrans states in the Project’s Final EIR/EA that “traffic is expected to increase in the project area due to the implementation of planned development on both sides of the highway.”¹²⁸ According to Caltrans, the existing interchanges have “restrictive dimensions, making it difficult for traffic, especially large trucks, to navigate them.”¹²⁹ Caltrans’ stated purpose is thus to “expand[]” the existing half interchanges “to full interchanges and bring[] them into compliance with current Caltrans design standards, thereby improving the traffic operations at those locations.”¹³⁰ Caltrans’ Air Quality Report for the Project – on which the Air Quality Conformity Analysis is based – estimates that expanding the interchanges will result in a 56% increase in truck traffic at the North Avenue interchange and a 94% increase in average daily truck traffic at the American Avenue interchange by 2026 relative to a No Build scenario; by 2046, the truck traffic at the North Avenue interchange will go up 61.4% and at the American Avenue interchange 85.5% relative to a No Build scenario.¹³¹ Averaging across the two interchanges, the Project will increase total truck traffic 59% in 2026 and 63% in 2046 relative to No Build.¹³² **Based on Caltrans’ own analysis, this would amount to almost two million new truck trips per year in South Fresno by 2046 because of the Project.**¹³³ With an accurate Project description and correcting Caltrans’ erroneous failure to consider related industrial development and induced demand, this number would undoubtedly be much higher.

¹²⁸ FINAL EIR/EA at 5.

¹²⁹ *Id.*

¹³⁰ *Id.*

¹³¹ AIR QUALITY REPORT at app. B (calculations based on Truck AADT estimates for North Avenue alternatives 1 and 2 and American Avenue alternative 1); *see also* Table 1 below.

¹³² *Id.*

¹³³ *Id.*

Though Caltrans never disclosed this fact to either FHWA or the public in its environmental review, records obtained through Public Record Act requests make clear that Caltrans actively collaborated with the County of Fresno in designing the Project to enable the development of the nearly 3,000-acre Fresno County Business and Industrial Campus in the unincorporated community of Malaga, directly adjacent to the Project's American Avenue interchange (see Figure 6 below).¹³⁴ According to the County, the Industrial Park will accommodate upwards of 19 million square feet of commercial and industrial building inventory, though experts have estimated its capacity at closer to 50 million square feet of warehouse space.¹³⁵ This warehouse buildup alone is estimated to generate between 4 million and 17 million additional annual truck trips in South Fresno.¹³⁶ Emails and memoranda exchanged between Caltrans and County staff show that Caltrans studied and accommodated Caltrans' requests to build at least four lanes at the Project's American Avenue interchange to provide sufficient capacity for truck traffic that the Industrial Park is expected to generate. Despite months of active coordination during the Project's environmental review, Caltrans disclaimed any knowledge of the Industrial Park or its implications for the Project when specifically questioned by interagency consultation partners in March and May 2023.¹³⁷ Planned industrial buildout in the Project area also includes 18.5 million square feet of industrial uses projected under the City's Draft South Central Specific Plan, which likewise informed Caltrans' design of the interchange expansions.

\

\

\

\

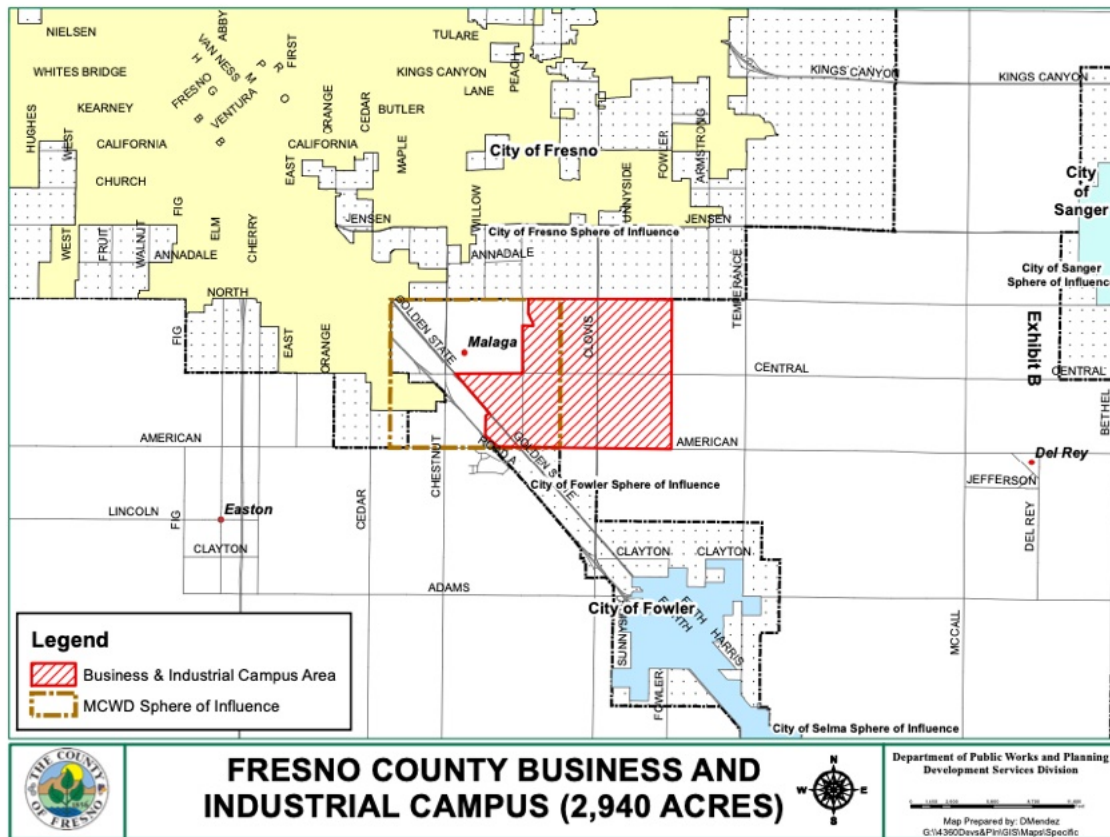
¹³⁴ See Exhibit 8 (August through December 2021 emails and documents exchanged among Caltrans staff and between Caltrans and the County regarding the Industrial Park and its relationship to the Project, obtained via response to California Public Records Act request).

¹³⁵ Exhibit 25, Gregory Weaver, *Will California expand a highway in America's most polluted city? Yes.* (Mar. 7, 2023), <https://fresnoland.org/2023/03/07/south-fresno-interchange-expansions/>.

¹³⁶ *Id.*

¹³⁷ See Exhibit 27 (May 2023 emails between Caltrans and the California Air Resources Board); Exhibit 28 (March 2023 emails between Caltrans and the U.S. EPA).

Figure 6: Industrial Park Map¹³⁸



II. Procedural History

As a joint state-federal initiative undertaken by Caltrans and the FHWA, the Project is subject to environmental review under the Clean Air Act, 42 U.S.C. § 7506(c), as well as the California Environmental Quality Act, California Public Resources Code section 21000 et seq. (“CEQA”), and the National Environmental Policy Act, 42 U.S.C. 4321 et seq. (“NEPA”). FHWA premised its transportation conformity determination on the analysis provided by Caltrans in its combined environmental review of the Project for CEQA, NEPA, and Clean Air Act purposes. This analysis, as well as FHWA’s transportation conformity determination, are the subject of ongoing litigation by Friends of Calwa and Fresno Building Healthy Communities in federal and state court.¹³⁹

¹³⁸ Exhibit 8 (Attachment to email from Bernard Jimenez, Assistant Director for Public Works and Planning, County of Fresno to Michael Navarro, Caltrans Deputy District Director (Aug. 24, 2021)).

¹³⁹ See Exhibit 1 (First Amended Verified Petition for Writ of Mandate and Complaint for Declaratory and Injunctive Relief, Friends of Calwa, Inc. et al. v. Cal. Dep’t of Transportation et al., Case No. 1:23-cv-00353 (E.D. Cal. Jun 22, 2023).); see also Verified Petition for Writ of Mandate and Complaint for Declaratory and Injunctive Relief, Friends of Calwa, Inc. et al. v. Cal. Dep’t of Transportation, Case No. 23CECG04109 (Oct. 2, 2023 Cal. Superior Court, County of Fresno).

A. Caltrans' Environmental Analysis Under CEQA and NEPA

On March 8, 2019, Caltrans issued a Notice of Preparation that it would prepare a Draft Environmental Impact Report (“EIR”) for the Project under CEQA and a Draft Environmental Assessment (“EA”) under NEPA.¹⁴⁰ Caltrans circulated the Draft EIR/EA for a 50-day public comment period on October 14, 2021.¹⁴¹ Initially, when Caltrans released the Draft EIR/EA, it only released it in English. At the insistence of residents and local community-based organizations – who pointed out to Caltrans that the South Fresno community is predominantly Spanish-speaking (72.8% of Calwa residents and 47.9% of Malaga residents speak Spanish at home)¹⁴²– Caltrans issued a Spanish translation of the Draft EIR/EA on December 15, 2021 for a 45-day comment period. It declined, however, to provide Spanish speakers a comparable comment period provided on the English-language Draft EIR/EA or to extend the comment period beyond January 28, 2022 despite straddling the holidays. Caltrans did not translate underlying technical studies into Spanish or provide any notices or EIR materials in other languages commonly spoken in South Fresno, including Punjabi and Hmong.¹⁴³ The Draft EIR/EA was entirely silent on the planned Industrial Park or the Project’s connection to it. And Caltrans did not circulate underlying technical studies – such as its 2020 Traffic Study, Community Impact Memorandum, Air Quality Report, or interagency consultation memorandum – with the EIR/EA or make them readily available for public review.

Despite these and other limitations, residents of and advocates for South Fresno communities worked tirelessly to make Caltrans understand the community’s concerns with the Project and its impacts on the livability of South Fresno neighborhoods and the health and welfare of residents. Friends of Calwa hosted multiple meetings with Caltrans at its location on East Jensen Avenue, at which residents and community advocates showed up to voice their concerns with and objections to the Project. Community-based organizations and residents also submitted their concerns to Caltrans in writing through extensive public comment. Commenters pointed out, for instance, that the Project did not account for the welfare – or even the existence – of South Fresno residents, and that the Project would spur more industrial development and generate more truck traffic in the area, worsening air quality and habitability of the South Fresno community, though this was neither acknowledged nor evaluated in the EIR.¹⁴⁴

¹⁴⁰ FINAL EIR/EA at 197.

¹⁴¹ *Id.* at vi.

¹⁴² United States Census Bureau, *American Community Survey*, <https://www.census.gov/acs/www/about/why-we-ask-each-question/language/>.

¹⁴³ According to the California Complete Count Language and Communication Access Plan, Spanish, Hmong, and Punjabi are all "language groups that [California Census Office] contractors need to support when conducting outreach activities." Language and Communication Access Plan, 5 & 17. Spanish, Hmong, and Punjabi are also all amongst languages that election materials must be provided in within Fresno County pursuant to the federal Voting Rights Act and California Elections Code, based on recent census data. Cal. Sec. of State, *Language Requirement for Election Materials*, <https://www.sos.ca.gov/elections/voting-resources/language-requirements>. In addition, Fresno Unified, the district for Calwa Elementary, provides an immersion program in Hmong in part because Fresno is home to the second largest Hmong population in the United States. See Ashleigh Panoo, *Hmong as a ‘Dying’ Language – But It’s Being Preserved at This Fresno School*, EDSOURCE, (Feb. 13, 2023), <https://edsource.org/2023/hmong-is-a-dying-language-but-its-being-preserved-at-this-fresno-school/685385>; see also PEW RESEARCH CENTER, *Hmong in the U.S. Fact Sheet*, <https://www.pewresearch.org/social-trends/fact-sheet/asian-americans-hmong-in-the-u-s/#top-10-u-s-metropolitan-areas-by-hmong-population-2019> (last visited July 10, 2024). And Calwa Elementary provides materials translated into Hmong for parents of students. FRESNO UNIFIED SCHOOL DIST., *Hmong Language Program*, <https://calwa.fresnounified.org/> (last visited July 10, 2024).

¹⁴⁴ FINAL EIR/EA at 276-287.

Of particular concern for residents, Caltrans concluded that no residential neighborhoods exist at all within a two-mile radius from the Project.¹⁴⁵ After commenters pointed out the existence of tens of thousands of residents in this radius as evidenced by Census data – including the entire communities of Calwa and Malaga – Caltrans reduced the Project area to 0.5 miles in the Final EIR/EA, explaining only that the prior two-mile radius had been “incorrectly labeled.”¹⁴⁶ It also concluded that “only industrial and commercial businesses” exist in this inexplicably shrunken Project area, despite evidence in the record to the contrary.¹⁴⁷ For instance, a 1,400-bed juvenile detention facility lies just 300 yards from the Project’s American Avenue interchange site.

Caltrans certified the Final EIR/EA for the Project in January 2023, issued a Finding of No Significant Impact under NEPA, and filed a Notice of Determination of its approval of the Project on February 6, 2023.¹⁴⁸

B. FHWA’s Transportation Conformity Determination

In the Draft EIR/EA, released in October 2021, Caltrans acknowledged that the Project is a regionally significant one located in an area subject to approved SIPs for PM2.5 and ozone and a Maintenance Plan for PM10. Accordingly, Caltrans also acknowledged that the Project is subject to Clean Air Act transportation conformity requirements under 42 U.S.C. section 7506(c) and EPA’s transportation conformity regulations. The Final EIR/EA concluded that, given these and other Project characteristics, “a project-level hot-spot analysis for conformity is required.”¹⁴⁹

Despite this conclusion, when Caltrans had circulated a memorandum to interagency consultation partners a year earlier, in July 2020, the agency requested concurrence that the Project was not one of Air Quality Concern and, as such, no hot-spot analysis would be necessary to determine transportation conformity for the Project. The memorandum did not notify interagency consultation partners of Caltrans’ analyses concluding that the Project would significantly increase truck traffic and congestion at the Project interchanges and worsen PM2.5 and PM10 pollution. Nor did Caltrans provide its Air Quality Report to consultation partners with the memorandum. Interagency consultation partners, including EPA, concurred on the basis of the memorandum alone that no hot-spot analysis was required for the Project.

Caltrans submitted to FHWA a request for a project-level conformity determination for the Project on or about September 2, 2022. As supporting documentation, Caltrans submitted an Air Quality Conformity Analysis dated August 2022, which had not been made available to interagency consultation partners or the public. To support its determination that the Project was not one of air quality concern, Caltrans asserted, despite its own analyses to the contrary, that the Project is not a new or expanded highway project, will not significantly affect diesel truck traffic, and will not affect intersections that are at a level of service D, E, or F with a significant number of diesel vehicles.¹⁵⁰ As in the EIR/EA, Caltrans’ Air Quality Conformity Analysis did not disclose the Project’s connection to the Industrial Park or the design changes made to the Project to accommodate the Industrial Park. Caltrans imported estimates and data in the Air Quality

¹⁴⁵ DRAFT EIR/EA at 28.

¹⁴⁶ FINAL EIR/EA at 278-79.

¹⁴⁷ See DRAFT EIR/EA.

¹⁴⁸ Cal. Code Regs. Tit. 14 (“CEQA Guidelines”), § 15112(c)(1).

¹⁴⁹ FINAL EIR/EA at 93.

¹⁵⁰ Compare AIR QUALITY REPORT at 54 with AIR QUALITY CONFORMITY ANALYSIS at 28–33.

Conformity Analysis from technical reports that had informed the Project EIR/EA, including in particular Caltrans' January 2021 Air Quality Report and its May 19, 2020 Traffic Operations Analysis.¹⁵¹

By letter dated October 3, 2022, FHWA determined on the basis of Caltrans' September 2022 Air Quality Conformity Analysis and the July 2020 interagency consultation memorandum that the Project conforms with applicable State Implementation Plans. FHWA's conformity determination recognized that the Project is in an area designated nonattainment for ozone and PM2.5 pollution but did not acknowledge the Project's potential to conflict with the Maintenance Plan for PM10 pollution.¹⁵² FHWA and Caltrans relied for public noticing and consultation on the comment period provided in the Draft EIR/EA; the agencies did not independently notice or invite public comment on the proposed conformity determination or release the documents on which it was based for public review.

C. Challenges to Project Approvals and the Resulting Clean Air Act Remand

On March 8, 2023, Friends of Calwa and Fresno Building Healthy Communities filed a Verified Petition for Writ of Mandate and Complaint for Declaratory and Injunctive Relief in the U.S. District Court for the Eastern District of California, Fresno Division, against Caltrans and FHWA alleging violations of CEQA and NEPA relating to approvals of the Project. *See Friends of Calwa et al. v. Cal. Dept. of Transportation et al.*, E.D. Cal. Case No. 1:23-CV-00353 (the "Federal Case"). On June 22, 2023, Plaintiffs filed a first amended petition and complaint adding causes of action against Caltrans and its Director, Tony Tavares, for violations of state civil rights laws (Government Code sections 11135 and 8899.50), and adding a cause of action against the U.S. Department of Transportation, FHWA, and their respective Secretary and Administrator (collectively, "Federal Defendants") for violations of the transportation conformity provisions of the Clean Air Act, 42 U.S.C. section 7506 and its implementing regulations at 40 C.F.R. Part 93.¹⁵³ Among other things, Plaintiffs allege that Federal Defendants violated the transportation conformity statute and regulations by failing to properly consult with the public and appropriate agencies in making their determination that the Project conforms with state plans to achieve the NAAQS for particulate matter and ozone pollution and by failing to conduct a quantitative "hot-spot analysis" of the Project's localized impacts from particulate matter pollution in the areas surrounding the interchanges.

On October 2, 2023, following extensive negotiations with Caltrans, Plaintiffs refiled the CEQA and state civil rights claims against Caltrans in Fresno Superior Court after Caltrans elected to assert a sovereign immunity defense from suit in federal court and shortly prior to dismissal of the state law claims on Caltrans' motion to dismiss. *See Friends of Calwa et al. v. Cal. Dept. of Transportation et al.*, Fresno Superior Court Case No. 23CECG04109 (the "State Case"). Caltrans filed a demurrer to the CEQA claims in the State Case on November 27, 2023 on statute of limitations grounds (on the theory that Plaintiffs refiled them outside CEQA's short limitations period), which the state court denied on February 5, 2024, reasoning that the statute

¹⁵¹ *Id.* at Appendix C, 23-26.

¹⁵² FINAL EIR/EA at app. F (Oct. 3, 2022 letter from FHWA to Caltrans finding that the Project "conforms with the State Implementation Plan (SIP)" but not addressing conforming with Maintenance Plan for PM10); *see id.* ("The project is in an area that is designated Non-Attainment or Maintenance for Ozone, and Particulate Matter (PM 2.5).").

¹⁵³ *See* Exhibit 1 (First Amended Complaint).

of limitations was equitably tolled while the identical CEQA claims were pending in federal court. Caltrans filed a motion for summary adjudication of the CEQA claims on the same statute of limitations theory on June 28, 2024; the motion is scheduled for hearing on September 9, 2024. Caltrans also moved to dismiss the NEPA claims against it in the Federal Case on August 21, 2023 on exhaustion grounds; this motion and the NEPA claims remain pending in federal court.

On December 4, 2023, Federal Defendants filed a Notice of Motion and Motion for Voluntary Remand in the Federal Case, requesting a remand of FHWA's Clean Air Act conformity determination for the Project. According to Caltrans, the remand would "allow FHWA to hold a public comment period for certain technical analyses that underpinned the conformity determination and engage in additional interagency consultation, thereby curing the alleged procedural defects Plaintiffs claim in their First Amended Complaint."¹⁵⁴ On December 18, 2023, Plaintiffs filed a Notice of Non-Opposition to the request for voluntary remand.¹⁵⁵ Plaintiffs stated therein that they do not oppose Federal Defendants' position that vacatur is not available in light of the procedural posture of the remand.¹⁵⁶ However, Plaintiffs cautioned that their Notice of Non-Opposition "should not be construed . . . as agreement with Federal Defendants' assertions that '[k]eeping the conformity determination in place during the remand process will not risk harm to the environment or prejudice Plaintiffs' or that the equities would not warrant vacatur were that option available to the Court."¹⁵⁷ Plaintiffs went on to explain that:

As Federal Defendants concede Defendant Caltrans is currently undertaking 'pre-construction activities' for the Project, including securing state financing, right-of-way certifications, and additional permitting, in reliance on FHWA's Clean Air Act conformity determination. *Id.* at 23-24. Such actions may entrench Defendants' commitment to the Project despite the remand and lock away funding that would otherwise be available for infrastructure and services that could materially benefit the South Fresno community. In a similar vein, keeping the conformity determination in place during remand raises a familiar 'danger that [the] agency, having reached a particular result, may become so committed to that result as to resist engaging in any genuine reconsideration of the issues,' turning the remand into a 'barren exercise of supplying reasons to support a preordained result.' *Food Mktg. Inst. v. Interstate Com. Comm'n*, 587 F.2d 1285, 1290 (D.C. Cir. 1978). Given the potential for remand without vacatur to prejudice reconsideration, FHWA must take measures to ensure meaningful public engagement, careful scrutiny of air quality impacts, and informed decision-making on remand.¹⁵⁸

On December 21, 2023 the U.S. District Court for the Eastern District of California entered an order remanding FHWA's transportation conformity determination for the Project to the agency. On March 22, 2023, Plaintiffs met with FHWA officials to discuss public engagement during the remand. During the meeting and in follow-up communications, Plaintiffs informed FHWA of the need for in-person meetings in South Fresno to collect oral comment in

¹⁵⁴ *Friends of Calwa et al. v. Cal. Dep't of Transportation*, Case No. 23-cv-00353, Dkt. No. 49 at 2 (Dec. 4, 2023).

¹⁵⁵ *Id.* at Dkt. No. 50 (Dec. 18, 2023).

¹⁵⁶ *Id.* at 3 (citing *In re Clean Water Act Rulemaking*, 60 F.4th 583, 594 (9th Cir. 2023)).

¹⁵⁷ *Id.* (quoting Dkt. No. 49 at 21).

¹⁵⁸ *Id.*

addition to a written comment period of sufficient length (ideally 90 days) to permit meaningful engagement. Plaintiffs also informed FHWA of measures that would be necessary to provide for meaningful engagement by residents, including release of notices and underlying documents in Spanish, Punjabi, and Hmong and translation services at public meetings. Fifteen Fresno community-based organization and coalitions echoed these and other recommendations in a May 7, 2024 letter to FHWA, urging FHWA to live up to its commitments in the U.S. Department of Transportation’s Equity Action Plan and take into careful account the demographics of South Fresno to create conditions that would assure meaningful opportunity for community engagement on this highly consequential determination.¹⁵⁹

III. Legal Framework:

Congress enacted the Clean Air Act to promote public health and welfare by enhancing the quality of the nation’s air resources.¹⁶⁰ The Act achieves these ameliorative objectives by setting up a “uniquely important system of cooperative federalism in the quest for clean air.”¹⁶¹ Under this structure, the EPA is empowered to identify air pollutants that “endanger public health and welfare” through the adoption of National Ambient Air Quality Standards (“NAAQS”).¹⁶² NAAQs are based on recent “scientific knowledge” and public notice and comment.¹⁶³ After NAAQs are set, states must adopt State Implementation Plans (“SIPs”) to assure timely attainment of NAAQs in areas that are out of compliance with these standards.¹⁶⁴ Similarly, states must adopt Maintenance Plans for air basins that have newly reached attainment to assure maintenance of the NAAQS.¹⁶⁵

Section 176(c) of the Act gives teeth to the NAAQS and these state plans by barring federal agencies and instrumentalities from approving, financing, or providing any other form of support for activities that may undermine attainment of the NAAQs. 42 U.S.C. § 7506(c). This so-called “conformity” provision works by imposing an “affirmative duty” on federal agencies to assure that any project subject to federal approvals or receiving federal assistance or support conforms with any approved SIP or Maintenance Plan in the area affected by the project.¹⁶⁶ “Conformity” for purposes of section 176(c) means:

- (a) conformity to an implementation plan’s purpose of eliminating or reducing the severity and number of violations of the national ambient air quality standards and achieving expeditious attainment of such standards, and
- (b) that such activities will not
 - (i) cause or contribute to any new violation of any standard in any area;

¹⁵⁹ See Exhibit 16 (May 7, 2024 Community Letter to FHWA).

¹⁶⁰ 42 U.S.C. § 7401(b)(1).

¹⁶¹ *Com. for a Better Arvin v. U.S. Envtl. Prot. Agency*, 786 F.3d 1169, 1173 (9th Cir. 2015).

¹⁶² 42 U.S.C. § 7408(a), (b); U.S. EPA, INTEGRATED REVIEW PLAN FOR THE NATIONAL AMBIENT AIR QUALITY STANDARDS FOR PARTICULATE MATTER 1-2 (Dec. 2016) <https://www.epa.gov/sites/default/files/2020-07/documents/201612-final-integrated-review-plan.pdf>.

¹⁶³ *Id.*

¹⁶⁴ U.S. EPA, *Basic Information about Air Quality SIPs*, <https://www.epa.gov/air-quality-implementation-plans/basic-information-about-air-quality-sips> (last visited July 10, 2024).

¹⁶⁵ 42 U.S.C. § 7505a.

¹⁶⁶ *Stand up for Cal! v. U.S. Dept. of Interior*, 552 F.Supp.3d 962, 985 (E.D. Cal. 2021); see 42 U.S.C. § 7506(c); see also 42 U.S.C. § 7410(a) (setting forth SIP requirements).

(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.¹⁶⁷

The U.S. EPA's transportation conformity regulations, codified at 40 C.F.R. Part 93, implement section 176(c) for transportation-related activities, including "[t]he approval, funding, or implementation of FHWA . . . projects."¹⁶⁸ These transportation conformity regulations apply in all nonattainment and maintenance areas for transportation-related criteria pollutants, including ozone, particulate matter (PM_{2.5} and PM₁₀), and carbon monoxide (CO).¹⁶⁹

To satisfy conformity mandates, FHWA projects like the one at issue here must satisfy several specified requirements. Among them, a project must "come from a conforming [transportation] plan and program" – that is it must have been defined and within the original scope of "the plan that is developed through the metropolitan planning process for the metropolitan planning area, developed pursuant to 23 CFR part 450"¹⁷⁰ and the "transportation improvement program (TIP) developed by a metropolitan planning organization under 23 U.S.C. 134."¹⁷¹ Further, the project "must not cause or contribute to any new localized CO, PM₁₀, and/or PM_{2.5} violations, increase the frequency or severity of any existing CO, PM₁₀, and/or PM_{2.5} violations, or delay timely attainment of any NAAQS or any required interim emission reductions or other milestones in CO, PM₁₀, and PM_{2.5} nonattainment and maintenance areas."¹⁷²

FHWA must use a quantitative "hot-spot analysis" to assess whether the project meets section 93.116 consistency criteria if the project falls within any of five enumerated categories. These categories include, among others:¹⁷³

- (i) New highway projects that have a significant number of diesel vehicles, and expanded highway projects that have a significant increase in the number of diesel vehicles;
- (ii) Projects affecting intersections that are at Level-of-Service D, E, or F with a significant number of diesel vehicles, or those that will change to Level-of-Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project[.]¹⁷⁴

¹⁶⁷ 42 U.S.C. § 7506(c)(1).

¹⁶⁸ 40 C.F.R. § 93.102(a)(iii).

¹⁶⁹ 40 C.F.R. § 93.102(b).

¹⁷⁰ 40 C.F.R. §§ 93.101, 93.115(a).

¹⁷¹ 40 C.F.R. § 93.101; 40 C.F.R. § 93.115(a).

¹⁷² 40 C.F.R. § 93.116(a).

¹⁷³ 40 C.F.R. § 93.123(b); *see* 40 C.F.R. § 93.116(a).

¹⁷⁴ 40 C.F.R. § 93.123(b).

FHWA informally refers to projects falling within any of these five categories as “projects of air quality concern.”¹⁷⁵ Whether a project is a Project of Air Quality Concern is usually determined through interagency consultation.¹⁷⁶

A hot-spot analysis is “an estimation of likely future localized pollutant concentrations” for PM₁₀, PM_{2.5}, and/or carbon monoxide “and a comparison of those concentrations to the relevant NAAQS.”¹⁷⁷ Such analyses assess “impacts on a scale smaller than the entire nonattainment or maintenance area, including, for example, congested roadway intersections and highways or transit terminals, and uses an air quality dispersion model to determine the effects of emissions on air quality.”¹⁷⁸

The transportation conformity regulations also dictate public and interagency consultation on proposed conformity determinations.¹⁷⁹ Public consultation means a “proactive public involvement process which provides opportunity for public review and comment by, at a minimum, providing reasonable public access to technical and policy information considered by the agency at the beginning of the public comment period.”¹⁸⁰ Likewise, interagency consultation procedures ensure that agencies at the federal, state, regional, and local levels with responsibilities over SIPs and Maintenance Plans are involved in evaluating the project’s conformity.¹⁸¹

ANALYSIS

I. FHWA’s Conformity Analysis Fails to Analyze the Project in its Entirety

FHWA’s conformity analysis is flawed at the threshold because it fails to consider the Project in its entirety, and consequently fails to analyze the full scope of particulate matter and ozone emissions that will result from the Project. FHWA’s determination as to whether a project is one of local air quality concern must be made by “analyzing the entire transportation project, after the identification of major design features which will significantly impact local concentrations.”¹⁸² Similar to when an agency unlawfully segments environmental review of a single coordinated set of activities in violation of NEPA, failure to consider a transportation project in its entirety for purposes of a Clean Air Act conformity analysis misleadingly

¹⁷⁵ Caltrans, *Chapter 11—Air Quality*, <https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser/volume-1-guidance-for-compliance/ch-11-air-quality#coord> (last visited July 10, 2024).

¹⁷⁶ *Id.* (Direct Permanent Impacts Section). “Evaluating and choosing models and associated methods and assumptions used in screening options must be completed through the process established by each area’s interagency consultation procedures.” U.S. EPA, *Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas*, EPA-420-B-10-040 at 12 (Dec. 2010) [hereinafter “Quantitative Hot-Spot Guidance”], https://www3.epa.gov/ttn/naaqs/aqmguide/collection/cp2/20101201_otaq_epa-420_b-10-040_transport_conform_hot-spot_analysis.pdf.

¹⁷⁷ Quantitative Hot-Spot Guidance, *supra* note 176 at 2.

¹⁷⁸ 40 C.F.R. § 93.101.

¹⁷⁹ *See generally* 40 C.F.R. § 93.105.

¹⁸⁰ 40 C.F.R. § 93.105(e).

¹⁸¹ 40 C.F.R. § 93.105(c).

¹⁸² 71 Fed. Reg. 12468, 12496; *see* 40 C.F.R. § 93.123(c)(1) (“Hot-spot analyses must include the entire project . . .”).

minimizes air pollution emissions and the likelihood of inducing further violations of the NAAQS or of jeopardizing attainment.¹⁸³

Here, FHWA has unlawfully truncated the scope of the Project in its Clean Air Act analysis in two prejudicial respects. First, Caltrans' August 2022 Air Quality Conformity Analysis on which FHWA proposes to base its determination asserts that the Project "would not change the State Route 99 mainline configuration, except to construct modified on- and off-ramps where they intersect the mainline at the interchange locations, and to set up traffic control during construction."¹⁸⁴ The Project EIR is explicit that Caltrans intends the interchanges to serve an "ultimate route concept" to expand the highway from six to eight lanes – a 33 percent increase in mainline capacity.¹⁸⁵ Indeed, the mainline widening is sufficiently certain to occur that Caltrans evaluated certain impacts of adding the two additional mainline lanes in its environmental review – such as impacts on level of service.¹⁸⁶

Under these circumstances, FHWA and CEQ regulations dictate that Caltrans include the additive impacts of the future highway widening phase in its Project definition and NEPA review.¹⁸⁷ Yet the conformity analysis neither discloses the mainline widening phase of the Project nor considers its additional air quality impacts. It thereby dramatically underestimates particulate matter and ozone emissions resulting from the Project.

Second, the conformity analysis fails entirely to discuss the Project's role in facilitating development of a massive 3,000-acre Industrial Park immediately adjacent to the Project's American Avenue interchange in the unincorporated community of Malaga. Indeed, Caltrans omitted not only the fact of the planned the Industrial Park but also its own months-long collaboration with the County of Fresno to design the Project to provide sufficient highway capacity to support the Industrial Park's development. Even more troublingly, Caltrans went to remarkable lengths to hide this information from FHWA and interagency consultation partners.

Since at least 2007, the County of Fresno has been pursuing efforts to develop a "large industrial park" in unincorporated areas of Fresno County adjacent to the City.¹⁸⁸ In 2017, well before Caltrans began preparing the Project EIR/EA, the County Board of Supervisors received a

¹⁸³ See *Great Basin Mine Watch v. Hankins*, 456 F.3d 955, 969 (9th Cir. 2006) ("The purpose of this requirement is to prevent an agency from dividing a project into multiple actions, each of which individually has an insignificant environmental impact, but which collectively have a substantial impact.").

¹⁸⁴ AIR QUALITY CONFORMITY ANALYSIS at 1.

¹⁸⁵ EIR at 6; see also Caltrans Project Report for Project Approval at 6 (Jan. 30, 2023), AR 000328 ("The proposed structure for North Avenue will accommodate the ultimate freeway of SR 99."); see also *id.* at 12 (AR000334) ("[T]he ultimate plan for Route 99 within the Project proximity is an eight-lane freeway.").

¹⁸⁶ See *id.* at 29 (AR000351) (concluding that "[w]idening the 6-lane to 8-lane freeway, the segment on both directions would remain operate [*sic*] at LOS 'F'").

¹⁸⁷ See 40 C.F.R. § 1502.4(a) ("Agencies shall evaluate in a single environmental impact statement proposals or parts of proposals that are related to each other closely enough to be, in effect, a single course of action."); 23 C.F.R. § 77.111(f)(1) (requiring that a single NEPA highway project, *inter alia*, "be of sufficient length to address environmental matters on a broad scope" and "be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made"); see also, e.g., *Fritiofson v. Alexander*, 772 F.2d 1225 (5th Cir. 1985) (explaining that more expansive consideration of cumulative impacts from contemplated future project phases is required when determining whether to prepare an EIS).

¹⁸⁸ Exhibit 29, County of Fresno Board of Supervisors, Board Agenda Item 4 RE Fresno County Business and Industrial Campus at 2, available at <https://fresnocounty.legistar.com/View.ashx?M=F&ID=9718395&GUID=8577DED4-DE90-470C-AF48-65A32680FBCE>.

staff presentation on the siting of this park in South Fresno and “directed staff to proceed with evaluation of options to develop an industrial area within the unincorporated area of Fresno County with initial focus on the Malaga, Calwa, and the Golden State Industrial Corridor” immediately adjacent to the Project interchanges.¹⁸⁹ On August 24, 2021 – two months before Caltrans released the Draft EIR/EA for the Project and a full year before issuing the Project’s Air Quality Conformity Analysis – the County of Fresno Board of Supervisors voted unanimously to advance these plans by approving a 2,940 acre location “generally bounded by North Avenue to the north, Peach Avenue and State Route 99 to the west, Fowler Avenue to the east, and American Avenue to the south for further County Staff study for [the] proposed future Fresno County Business and Industrial Campus.”¹⁹⁰ And it “direct[ed] staff to develop an Initial Infrastructure Assessment assessing infrastructural availability and needs to serve the proposed future Fresno County [Industrial Park].”¹⁹¹

As recently as May 2023, Caltrans expressly denied any knowledge of County plans to develop the Industrial Park adjacent to the Project site in communications with interagency consultation partners. On May 12, 2023, the California Air Resources Board sent Caltrans a detailed letter describing its serious concerns about the additional air quality “burdens associated with recent land use development proposals that overlap with the Project” and the Project’s potential to undermine gains that could be achieved through emissions reductions plans for South Central Fresno.¹⁹² Addressing the planned Industrial Park specifically, the Board informed Caltrans that “such a significant land use development with expected industrial development served by the Project’s upgrades should have been considered in Caltrans’ cumulative impact analysis.”¹⁹³ The Board also concluded that the “Project may hinder achieving the goal of providing improved health for a community that experiences a substantially elevated air pollution burden because of its potential to enable and induce significant increases in vehicle miles traveled by diesel-fueled trucks serving the future industrial and commercial development described” in the letter.¹⁹⁴ In response, Caltrans denied knowledge of the Industrial Park entirely. Caltrans District Six Director Diana Gomez stated by email to the Board and to U.S. EPA that “Fresno County has not prepared any preliminary studies, environmental documents or requested any changes to the General Plan regarding any large scale development near our project.”¹⁹⁵ Likewise, in a March 30, 2023 email to U.S. EPA Environmental Engineer Karina O’Connor and other EPA staff, Caltrans Deputy Director Philip Vallejo stated that his “team has confirmed with the County that there is no planned or approved Industrial Park at this location.”¹⁹⁶

¹⁸⁹ *Id.*

¹⁹⁰ Exhibit 18, County of Fresno Board of Supervisors, Action Summary – Final, Item No. 4 (Aug. 24, 2021); Exhibit 17, County of Fresno, Board of Supervisor Agenda, Item No. 4 (Aug. 24, 2021), <https://fresnocounty.legistar.com/LegislationDetail.aspx?ID=5088384&GUID=ECA3539A-A99F-4118-A4BE-45AFB9F12387>.

¹⁹¹ Exhibit 18, County of Fresno Board of Supervisors, Action Summary – Final, Item No. 4 (Aug. 24, 2021)

¹⁹² Exhibit 6, Letter from California Air Resources Board (CARB) to Director Diana Gomez, EPA (May 12, 2023); *see also* Exhibit 28 (May 12, 2023 Email from Chanell Fletcher, CARB to Diana Gomez, EPA, expressing concern that industrial park “land use proposal, combined with the project, could have significant potential to undo the gains that could be achieved through the South Central Fresno Community Emissions Reduction Plan”).

¹⁹³ Exhibit 6, Letter from CARB to Director Diana Gomez at 2.

¹⁹⁴ *Id.*

¹⁹⁵ Exhibit 28 (May 26, 2023 Email from Director Diana Gomez, Caltrans, to Chanell Fletcher, CARB).

¹⁹⁶ Exhibit 27 (March 30, 2023 Email from Philip Vallejo, Caltrans, to Karina O’Connor, U.S. EPA).

Public records show otherwise. For instance, an August 24, 2021 email exchange between Caltrans and County staff reflects that the agencies held an in-person meeting at Caltrans' headquarters to discuss the "proposed business and industrial campus."¹⁹⁷ In preparation for this meeting, County and Caltrans staff exchanged site maps of the Industrial Park showing the 2,940-acre campus encompassing the Project's American Avenue interchange site. County and Caltrans staff or officials conducted a further meeting on December 10, 2021, during which the agencies discussed the Industrial Park at length and its specific implications for this interchange expansion Project. Indeed, an email from Caltrans Senior Transportation Engineer Jun Xu reflected that these conversations between Caltrans and the County about the Industrial Park and its connection to the Project had been regularly recurring.¹⁹⁸

Notes from the December 10, 2021 meeting between Caltrans and the County reflect that the County specified the size of the American Avenue interchange that would be needed to accommodate truck traffic that the Industrial Park is expected to induce. Caltrans staff reported that the County requested evaluation of specific changes to the Project design, including that it "accommodate ultimate 4 lane and median facility within the county's established plan lines" and construct a "bridge to ultimate 4 lane and median facility with current project to accommodate current/future developments."¹⁹⁹ Caltrans Senior Transportation Engineer Jun Xu stated in an email exchange following the meeting that if Caltrans "want[s] to entertain any four-lane options, we need new traffic projections from Planning after including the new industrial park."²⁰⁰ Jun Xu also suggested that, absent the Industrial Park, "the projected [traffic] volume at American Ave is not very high even for a 2-lane road," implying that four-lanes would only be necessary at American Avenue to accommodate truck traffic attributed to the Industrial Park. Likewise, a Caltrans analysis of "options" for American Avenue created following the December 2021 meeting with the County reflected Caltrans' conclusion that the addition of two more lanes to the American Avenue interchange to bring it up to four lanes would *only* be necessary to accommodate the planned industrial development. If there were any doubt about the industrial buildout Caltrans was planning the Project around, Jun Xu laid it to rest in an email requesting evaluation of the four-lane American Avenue design option to accommodate the "'the new industrial park' that the county is talking about," linking to a local news article about the planned Industrial Park.²⁰¹ Ultimately, Caltrans' adopted Hybrid alternative for American Avenue includes the new four-lane overcrossing structure as well as four lanes along American Avenue through the on- and off- ramp intersections.²⁰²

County and Caltrans officials acknowledged the Industrial Park's reliance on the Project in public meetings in addition to these closed-door exchanges. According to an interview with County Supervisor Steve Brandau, who also sits on the Board of the Fresno County

¹⁹⁷ Exhibit 8 (Email from Bernard Jimenez, Assistant Director for Public Works and Planning, County of Fresno to Michael Navarro, Caltrans Deputy District Director RE "Proposed Business and Industrial Campus" (Aug. 24, 2021)).

¹⁹⁸ Exhibit 8 (Email from Jun Xu, Caltrans, to Eric Olson et al., Caltrans RE 06-OH240 American Ave (Dec. 11, 2021) ("[I]t will be difficult for us to move forward if this topic resurfaces every other month.")).

¹⁹⁹ Exhibit 8 (Email from Michale Stravropoulos, Caltrans, to Chris Gardner and Jun Xu, Caltrans RE O6-OH240 (Dec. 10, 2021)).

²⁰⁰ Exhibit 8 (Email from Jun Xu, Caltrans, to Michael Navarro et al., Caltrans RE 06-Oh240 Meeting with County (Dec. 10, 2021)).

²⁰¹ Exhibit 8 (Email from Jun Xu, Caltrans, to Eric Olson et al., Caltrans RE O6-Oh240 American Ave (Dec. 11, 2021)). (Dec. 13, 2021 email).

²⁰² FINAL EIR/EA at 13.

Transportation Authority (a Project sponsor), the Project would directly enable the development of the Industrial Park. Brandau confirmed that the County is “doing the industrial park because it is potentially a fit for this area with these (the Caltrans projects) and other improvements.”²⁰³ Brandau went on to state, “If we upgraded American and North [Avenues], business folks would start looking at [the industrial park]. That’s why we would consider [the interchange upgrades] a help to the industrial park.”²⁰⁴

Despite these repeated discussions between the County and Caltrans about Industrial Park’s connection to the Project, Caltrans wholly omitted any reference to the Industrial Park or its implications for traffic that would use the Project interchanges in its August 2022 Air Quality Conformity Analysis, the July 2020 Memorandum to Interagency Consultation Partners, and the Project EIR/EA and additional analyses on which it relied. Instead, Caltrans’ Air Quality Conformity Analysis, on which FHWA proposes to base its conformity determination, asserts that expected “[i]ncreases in truck traffic at the intersections” will be from “trucks [] already expected in the area, as part of the *existing* industrial and business park facilities.”²⁰⁵ Caltrans knew this was inaccurate – and indeed was discussing internally and with the County significantly expanded truck traffic anticipated in connection with the Industrial Park – at the time it penned this statement. It is also patently inconsistent with the massive industrial buildout projected under the South Central Specific Plan and acknowledged by Caltrans’ in the Project EIR/EA.²⁰⁶ This alone requires FHWA to vacate its October 3, 2022 conformity determination for the Project and the analysis on which it relies.

Even more troubling, there is mounting evidence that Caltrans deliberately ignored internal alarm bells raised by senior agency officials about the omission of the Industrial Park from these environmental analyses. According to recent reporting in *Fresnoland*, Jeannie Ward-Waller, a top Caltrans executive at the time, “raised concerns inside the agency about leaving the industrial park out of the analysis” as the Project’s environmental review was being finalized in 2022.²⁰⁷ According to Ward-Waller, the agency’s omission of the Industrial Park from these analyses was “deliberate” and her “concerns fell on deaf ears at Caltrans’ San Joaquin Valley headquarters.”²⁰⁸ Ward-Waller explained that Caltrans’ omission of the Industrial Park from environmental review of the Project was meant to “get around having to talk about more vehicle miles traveled, more emissions, and more impacts on environmental justice communities.”²⁰⁹ Caltrans placed Ward-Waller on administrative leave after she blew the whistle on Caltrans’ failure to disclose “the true nature of” a similar highway expansion project and its evasion of mandatory environmental reviews; Ward-Waller’s lawsuit against Caltrans for whistleblower retaliation remains pending.²¹⁰

²⁰³ Exhibit 25, Weaver, *supra* note 134.

²⁰⁴ *Id.*

²⁰⁵ AIR QUALITY CONFORMITY ANALYSIS at 24 (emphasis added); *see also* FINAL EIR/EA at 277 at 277 (“Regardless of any future action to add more industrial development in the project vicinity, both new interchanges will improve current operations at each interchange. The improved operations will reduce truck idling and reduce out-of-direction travel, leading to improvements in air quality over the current interchanges.”)

²⁰⁶ FINAL EIR/EA at 36.

²⁰⁷ Exhibit 24, Gregory Weaver, *New Questions Emerge Over Caltrans Approval of \$140M Highway Plan in Fresno County*, FRESNOLAND (Dec. 4, 2023), <https://fresnoland.org/2023/12/04/caltrans/>.

²⁰⁸ *Id.*

²⁰⁹ *Id.*

²¹⁰ Complaint, Elizabeth Ward-Waller v. California Dep’t of Transportation, No. 24CV008210, <https://subscriber.politicopro.com/f/?id=0000018f-1b99-d78f-afaf-3f9bde210000>.

II. FHWA Violates the Clean Air Act and Its Implementing Regulations by Failing to Require a Hot-Spot Analysis to Inform its Conformity Determination

FHWA proposes to proceed with a conformity determination for the Project without a quantitative hot-spot analysis to inform the Project's potential to create severe localized particulate matter hot-spots. This is legal error. EPA's regulations implementing section 176(c) of the Clean Air Act require FHWA to perform a quantitative hot-spot analysis to inform a project-level transportation conformity determination if: (1) the project will be constructed within a nonattainment and/or maintenance area for particulate matter or carbon monoxide, and (2) the project falls within any one of five enumerated categories of projects likely to present localized air quality concerns.²¹¹ Without a hot-spot analysis, FHWA cannot make an informed determination whether a project with characteristics of potential air quality concern may cause new localized air quality violations, increase the frequency or severity of violations, or otherwise delay timely attainment of the NAAQs and therefore conflict with Clean Air Act protections.²¹²

Here, the Project readily satisfies both criteria triggering completion of a hot-spot analysis; this is apparent from Caltrans' own environmental review, which itself dramatically understates the scope of potential air quality concerns through an unlawfully cribbed description of the scope of the project and its likelihood of inducing new diesel truck trips. Because the failure to comply with regulatory requirements to produce a hot-spot analysis makes FHWA's conformity determination arbitrary and unlawful, FHWA must vacate its October 2022 conformity determination and suspend any action on the Project unless and until this requirement is satisfied and results of it taken into account in a revised conformity analysis.

A. FHWA Acknowledges the Project will Occur in Non-Attainment and Maintenance Areas for Particulate Matter Pollution

There is no question that the first regulatory condition requiring FHWA to perform a quantitative PM2.5 and PM10 hot-spot analysis for the Project is satisfied.²¹³ The Project will be constructed in a nonattainment area for PM2.5 and in a maintenance area for PM10 pollution.²¹⁴ Indeed, Caltrans and FHWA have both acknowledged as much in the Project's EIR/EA, Caltrans' August 2022 Air Quality Conformity Analysis supporting FHWA's conformity determination, and in federal court filings.²¹⁵

B. FHWA Erred in Adopting Caltrans' Flawed Conclusion That the Project Is Not One of Air Quality Concern

Within its August 2022 Air Quality Conformity Analysis, Caltrans summarily concluded that a hot-spot analysis was not required because the Project is not a project of air quality concern.²¹⁶ It is wrong. First, Caltrans' own environmental analysis shows that the Project falls within multiple categories mandating completion of a hot-spot analysis. Second, Caltrans' environmental analysis dramatically understates the scope of the air quality concern by hiding the Project's connection to the 3,000-acre County Industrial Park planned for development directly adjacent to the Project site, among other nearby industrial expansion projects that will

²¹¹ 40 C.F.R. § 93.123(b); *see* 40 C.F.R. § 93.116(a)

²¹² 40 C.F.R. § 93.116(a).

²¹³ 40 C.F.R. § 93.116(a)

²¹⁴ *See* 2018 PM2.5 Plan; 2017 PM10 Maintenance Plan.

²¹⁵ AIR QUALITY CONFORMITY ANALYSIS at 12; FINAL EIR/EA at 91.

²¹⁶ AIR QUALITY CONFORMITY ANALYSIS at 12-13.

rely on the interchanges and the planned expansion of the highway mainline. Third, Caltrans and FHWA err by omitting any analysis of truck traffic that the Project will induce despite a robust scientific consensus on the impacts of transportation projects like this one on increased highway use.

1. Caltrans' own analysis shows a hot-spot analysis was required.

A Project requires a hot-spot analysis if it falls within any of the enumerated categories set forth in 40 C.F.R. section 92.123(b)(1) that would qualify it as “project of air quality concern.”²¹⁷ Caltrans' own technical analyses underlying the EIR/EA show that it falls within multiple section 93.123(b)(1) categories.

a. The Project is an “expanded highway project” with a “significant increase in the number of diesel vehicles”

According to Caltrans' own data, the Project clearly qualifies as an “expanded highway project[] that ha[s] a significant increase in the number of diesel vehicles” within the meaning of 40 C.F.R. section 93.123(b)(1)(i), for which a hot-spot analysis is required.

Excluding the industrial park from its projections, Caltrans concludes in its Air Quality Conformity Analysis that vehicle traffic at the American Avenue interchange will increase by upwards of 2,400 Annual Average Daily Traffic (AADT) trips by 2026 relative to the No Build alternative, including roughly 480 Average Daily Traffic (ADT) trips for trucks.²¹⁸ This represents a **42% increase in total traffic** relative to the No Build alternative, and a **94% increase in truck traffic** relative to No Build.²¹⁹ These traffic increases grow much worse over time. By 2046, again excluding the Industrial Park from the analysis, Caltrans concluded that total vehicle traffic at the American Avenue interchange will increase by 3,000 AADT relative to the No Build alternative, including roughly 600 truck ADT relative to No Build. This represents a **38% increase in total traffic, and an 85% increase in truck traffic**, relative to a No Build alternative twenty years into Project operations. Increases as high as 93% in truck traffic and 42% in overall traffic volume are “significant” by any measure and should have been enough to dictate completion of a hot-spot analysis. Unsurprisingly, the Project EIR/EA concedes that “[i]ncreases in truck traffic at the intersections are to be expected, as the improvements will be specifically designed to accommodate such vehicles.”²²⁰

Caltrans' efforts to explain away these significant increases fail on both the facts and the law. First, Caltrans asserts that decreases in overall North/Cedar Avenue interchange traffic (cars and trucks) more than offset increases in American Avenue interchange traffic.²²¹ Caltrans' math is wrong. According to Caltrans' own numbers in its Air Quality Conformity Analysis, traffic at the North/Cedar Avenue interchange will decrease by only 1,000 AADT in 2026, while it will increase by 2,400 total AADT at American Avenue. This means that, according to

²¹⁷ 40 C.F.R. § 92.123(b)(1).

²¹⁸ AIR QUALITY CONFORMITY ANALYSIS at 26 (calculations based on American Avenue Alternative 1) These numbers vary slightly depending on the choice of alternatives. Notably, Caltrans has not conducted an AADT analysis, or any air quality analysis, for its adopted Hybrid Alternative, which it set forth for the first time in its January 2023 Final EIR/EA. Caltrans derived these projections from its January 19, 2021 Air Quality Report, which informed the Project EIR/EA and conformity analysis. See Air Quality Report at 13 & 15-16, tpls. 4, 9 & 11.

²¹⁹ In other words, the Project alone generates truck emissions that are 194% of No Build emissions in 2026 and 185% of No Build emissions levels in 2046.

²²⁰ FINAL EIR/EA at 24.

²²¹ AIR QUALITY CONFORMITY ANALYSIS at 27.

Caltrans, **total traffic across the two interchanges will actually go up by 1,400 AADT by 2026.** This pattern holds for 2046 as well, which will see an overall increase in traffic of 1,200 AADT by 2046 averaging across the two interchanges.

Second, while Caltrans’ Air Quality Conformity Analysis shows truck ADT decreasing slightly by averaging across the two interchanges, this conclusion is based on invented numbers and erroneous assumptions. According to Caltrans’ January 2021 Air Quality Report, which Caltrans cites to as the source of data used by the Air Quality Conformity Analysis, truck traffic at the North Avenue interchange will increase to 9,372 daily truck trips in 2026 relative to 6,003 daily truck trips without the Project (a **56% increase**), and to 12,311 daily truck trips in 2046 relative to 7,627 without the Project (a **61.4% increase**).²²² Caltrans provided higher projections of No Build truck ADT in its Air Quality Conformity Analysis and Interagency Consultation Memorandum (9,996 truck ADT in 2026 and 13,250 truck ADT in 2046), which make it appear that the Project will improve truck traffic at the North Avenue interchange. But Caltrans cites to the Air Quality Report as the sole source of this data, which expressly contradicts these numbers. Caltrans provides no explanation for nor even acknowledges the inconsistency; indeed, it appears that Caltrans invented the No Build ADT numbers for North Avenue in its Air Quality Conformity Analysis out of whole cloth. Taking Caltrans’ own projections in the Air Quality Report at face value and as shown in the calculations in Table 1 below, **the Project will contribute, 1.4 million new truck trips to South Fresno by 2026 and over 1.9 million new trucks by 2046.**

Table 1

Truck AADT	Baseline	No Build	No Build
	2019	2026	2046
State Route 99 Mainline	39428	44048	65132
North Avenue	4721	6003	7627
American Avenue	441	513	702
Total interchange trips	5162	6516	8329
Truck AADT	Baseline	Build	Build
	2019	2026	2046
State Route 99 Mainline	-	-	-
North Avenue (Alt 1/2)	4721	9372	12311
American Avenue (Alt 1)	441	993	1302
Total interchange trips	5162	10365	13613
Increase over No Build - daily	-	3849	5284
Increase over No Build - yearly		1,404,885	1,928,660
% increase over No Build	-	59%	63%

²²² AIR QUALITY REPORT at 13-14, tbls. 4-5 & 7 (based on estimates for Alternative 2, selected by Caltrans as the preferred alternative in the Final EIR/EA and adopted by Caltrans as the Project for North Avenue). See AIR QUALITY CONFORMITY ANALYSIS at 25.

Caltrans' truck ADT analysis is also based on the faulty assumption that truck traffic composition will only increase at American Avenue by 3% from baseline.²²³ Caltrans itself acknowledges that “[w]ith the construction of planned development on both sides of the highway, traffic is anticipated to increase, especially truck traffic.”²²⁴ And yet it made no apparent effort to factor into its traffic analysis the expected increase in the proportion of traffic utilizing the interchanges that will be composed of trucks. Contradicting its own assertion that truck traffic would increase as a result of anticipated industrial development, Caltrans in the very same analysis states that projected increases in Truck traffic in future Build alternatives result from “growth associated with anticipated future population, not an influx of traffic due to a new industrial/commercial/truck facility.”²²⁵ Caltrans offers no explanation for how these two contradictory conclusions can be true at the same time.

Caltrans' assumption that truck traffic composition will increase by only 3% at the American Avenue interchange is particularly troubling as Caltrans was, at the same time it drafted this report, coordinating with the County of Fresno to design the American Avenue interchange to accommodate massive increases in truck traffic associated with the planned Industrial Park. Maps of the Industrial Park boundaries in Caltrans' own files show the park overlapping with the American Avenue interchange. According to the California Air Resources Board, initial development projections for the Industrial Park show “anticipated full buildout of 15 years and support of 19 million square feet of industrial/commercial building inventory.”²²⁶ Again, Caltrans knew this enormous influx of truck traffic would principally use the American Avenue interchange, and it designed the interchange expansion for this very purpose.²²⁷ Under these circumstances, Caltrans' assumption that truck traffic composition would increase by only 3% by 2026 and remain at 12% by 2046, and that total truck traffic using the American Avenue interchange would not dwarf baseline numbers by 2046, defies comprehension.

Third, Caltrans offers no support for a conformity analysis that relies on averaging traffic volumes between interchanges that are almost three miles apart.²²⁸ Nor could it, as this method is contrary to the purpose of a conformity determination, which considers whether a transportation project will: “cause or contribute to any new violation of any standard *in any area*,” “increase the frequency or severity of any existing violation of any standard *in any area*” or “delay timely attainment of any standard or any required interim emissions reductions or other milestones *in any area*.” 42 U.S.C. § 7506(c)(1)(B) (emphasis added). In other words, even if particulate matter might decrease at one Project site, a significant increase in particulate matter at another Project site, or indeed “any area” affected by the Project, would violate the Clean Air Act. For this reason, implementing regulations require a hot-spot analysis for the purpose of “estimating likely future *localized*” particulate matter pollution concentrations and comparing them to the NAAQS. 40 C.F.R. § 101. This is to be done on a “scale smaller than the entire

²²³ See AIR QUALITY CONFORMITY ANALYSIS at 26 (Table D) (concluding that 9% of American Avenue interchange comprises diesel trucks as of 2019 and projecting that this ratio increases to 12% under both 2026 and 2046 Build projections).

²²⁴ *Id.* at 10; see also AIR QUALITY REPORT at 4.

²²⁵ AIR QUALITY CONFORMITY ANALYSIS at 12-13.

²²⁶ Exhibit 6 at 1 (May 12, 2023 CARB Letter to Caltrans).

²²⁷ FINAL EIR/EA at 5 (“The on- and off-ramps also have restrictive dimensions, making it difficult for traffic, especially large trucks, to navigate them.”).

²²⁸ See FINAL EIR/EA at vi.

nonattainment or maintenance areas, including, for example, congested roadway intersections” like the American Avenue intersection. *Id.*

EPA’s Quantitative PM Hot-Spot Guidance is even more specific, requiring agencies to establish a network of “critical receptor sites for refined analyses” and providing direction “that receptor sites be placed in sufficient detail to estimate the highest concentrations and possible violations of a NAAQS.”²²⁹ “In designing a receptor network (e.g. the entire coverage of receptors for the project area), the emphasis should be placed on resolution and location,” and receptors “should be sited *at all locations* at which high concentrations may occur.”²³⁰ “[A]dditional receptors may be needed for some projects,” such as “where a project area includes one or more nearby sources,” such as an industrial development, “that need to be included in the modeling.”²³¹ EPA also expressly instructs agencies to place receptors “where there are communities with environmental justice concerns located in the project area” to “understand[] the project’s effects on these residents.”²³² This would certainly include the hundreds of youth housed at the Juvenile Justice Center immediately abutting the American Avenue interchange. It would also include Project-adjacent environmental justice communities selected as among the first to participate in the community emissions reduction program under California Assembly Bill 617 due to their particularly severe vulnerability to pollution. In sum, nothing in EPA’s Guidance would permit an agency to *average across* receptors sited miles apart to identify a potential exceedance of the NAAQS. To the contrary, EPA is explicit that the goal of the analysis is to “accurately estimate emissions from a specific type of activity *where that activity occurs.*”²³³

In its Air Quality Conformity Analysis, Caltrans offers three reasons why the Project does not qualify as one of air quality concern under 40 C.F.R. section 93.123(b)(1)(i). Caltrans is wrong on all of them.

First, Caltrans states that the “proposed project is an interchange reconfiguration project that does not increase the capacity of SR 99 *or the interchanges.*”²³⁴ Setting aside whether the Project increases the capacity of the mainline by adding new ramps, lanes, and bridges, Caltrans is explicit that the purpose and effect of the Project is to increase interchange capacity. Caltrans’ stated purpose is to “reconstruct the existing interchanges on State Route 99 at American Avenue and North Avenue by *expanding them* to full interchanges.”²³⁵ Caltrans states that this additional capacity is needed to accommodate increased traffic “expected . . . due to the implementation of planned development on both sides of the highway” and to make it easier for “traffic, especially large trucks, to navigate” the on- and off-ramps.²³⁶ The Project will increase capacity by adding new ramps, three additional lanes to each of the interchanges (to bring them from one to four lanes), as well as a four-lane overcrossing structure, in addition to other widening improvements.²³⁷ As Dr. Lee and Dr. Patterson explain in their expert report, “[i]ncreasing the number of lanes and ramps of the two interchanges is patently increasing the capacity of the

²²⁹ Quantitative Hot-Spot Guidance, *supra* note 176 at 78.

²³⁰ *Id.* at 78-79.

²³¹ *Id.* at 80.

²³² *Id.*

²³³ *Id.* at 58 (emphasis added).

²³⁴ AIR QUALITY CONFORMITY ANALYSIS at 23 (emphasis added).

²³⁵ FINAL EIR/EA at 5 (emphasis added).

²³⁶ *Id.*

²³⁷ *Id.*

interchanges.”²³⁸ Indeed, Caltrans’s EIR/EA is explicit about this increase in capacity, explaining that “[f]or each build alternative in the proposed project, the amount of mobile source air toxics emitted would be slightly higher than that for the No-Build Alternative because the *additional capacity of the interchanges increases* the efficiency of the interchanges and allows more direct access to local areas along State Route 99.”²³⁹ Further, Caltrans’ October 26, 2021 internal communications show that its adoption of a four-lane design at the American Avenue interchange was intended to accommodate the new truck traffic anticipated to be induced by the adjacent Industrial Park.²⁴⁰

Next, Caltrans concludes that traffic volumes “would not approach or exceed the 125,000 AADT criterion for a” project of air quality concern and that “total truck volume would remain below the 10,000 AADT criterion (8% of 125,000 AADT) for” a project of air quality concern.²⁴¹ Caltrans misapplies EPA’s Quantitative PM Hot-Spot Guidance. EPA provides as an example of a “*new highway or expressway*” that would require a hot-spot analysis a facility “with greater than 125,000 annual average daily traffic (AADT) and 8% or more of such AADT is diesel truck traffic.”²⁴² The Project is a not a *new highway or expressway*, and these numbers are thus not applicable to this Project; nor does EPA anywhere suggest that the significance criterion for an interchange expansion would be identical to that for a new highway. In any event, the State Route 99 Project corridor well exceeds these thresholds.²⁴³ According to Caltrans’ January 2021 Air Quality Report and July 2020 Interagency Consultation Memo, the State Route 99 Mainline in 2019 has an 245,300 overall AADT, 16% of which is diesel truck traffic (39,248 Truck ADT).²⁴⁴ Caltrans never provides an estimate of Build versus No-Build mainline traffic, but under the No-Build Alternative, traffic continues to exceed EPA’s example thresholds in 2026 (275,300 AADT, 16% of which is trucks) and 2046 (408,200 AADT, 16% of which is trucks).²⁴⁵ Although Caltrans cites to its 2021 Air Quality Report as the source of traffic data in its Air Quality Conformity Analysis, it puts down very different numbers for mainline AADT in the latter: 122,650 in 2019, 16% of which is trucks; 199,050 in 2026, 16% of which is trucks, and 297,300 in 2046, 16% is trucks.²⁴⁶ There is no apparent source for the lower AADT figures in Caltrans’ Air Quality Conformity Analysis or explanation for the discrepancies with the sources of these figures, which only serves to further mislead FHWA in its conformity determination.

Third, Caltrans concludes that “traffic volumes would ultimately be due to expected future population growth in the Fresno County area, not an influx of traffic due to a newly build industrial, commercial, or trucking facility.”²⁴⁷ Wrong again. Caltrans’ own projections show

²³⁸ LEE AND PATTERSON EXPERT REPORT at 5.

²³⁹ FINAL EIR/EA at 102; DRAFT EIR/EA at 98.

²⁴⁰ See, e.g., Exhibit 8 (Emails from Eric Olson and Chris Gardner, Caltrans, to David Berggren et al., Caltrans RE O6-0H240 American Ave (Oct. 26, 2021) (instructing Caltrans staff to study four-lane option based on the Industrial Park “the County was considering”).

²⁴¹ AIR QUALITY CONFORMITY ANALYSIS at 23.

²⁴² Quantitative Hot-Spot Guidance, app. B-1.

²⁴³ See LEE AND PATTERSON EXPERT REPORT at 6-7.

²⁴⁴ AIR QUALITY REPORT at 11, tbl. 1; see also Caltrans, *Memorandum to Interagency Consultation Partners RE Consultation on PM10 & PM2.5 Hot-spot Conformity Assessment, South Fresno Interchange Project, State Route (SR) 99 in Fresno County* 4, tbl. 1 (July 2, 2020) [hereinafter “Interagency Consultation Memo”].

²⁴⁵ AIR QUALITY REPORT at 13, tbl. 4; see also Interagency Consultation Memo at 4, tbl 1.

²⁴⁶ AIR QUALITY CONFORMITY ANALYSIS at 25; LEE AND PATTERSON EXPERT REPORT at 7.

²⁴⁷ AIR QUALITY CONFORMITY ANALYSIS at 23.

that traffic (including truck traffic) at the American Avenue interchange would significantly increase if any of the Project alternatives were built relative to a No-Build scenario: these increases can *only* be attributable to the Project. And again, the record is replete with information showing massive expected industrial, commercial, and goods-movement buildout around the Project site in the coming decades. Indeed, even if the Industrial Park does not go forward, despite County commitments to its development, significant industrial and commercial buildout in the Project area would still be expected. As the County explained in authoring further study of the Industrial Park, 980 acres of the Park “overlaps with the existing Malaga industrial area,” and further industrial development here and across South Fresno is anticipated.²⁴⁸ This includes significant development planned around the North and American Avenue interchanges under the City’s Draft South Central Fresno Specific Plan.

Caltrans appears to concede as much elsewhere in its Air Quality Conformity Analysis. Despite its attempts to explain this away, Caltrans admits that the expansion of the American Avenue interchange, not unrelated population growth, will induce the increases in truck traffic forecasted at the American Avenue location in 2024 and 2046: “[T]he increase [in truck traffic at the American Avenue location] is attributed to the completion of the full interchange at American Avenue.”²⁴⁹

b. The Project will worsen level-of-service at major intersections

Caltrans’ own analysis also shows that a quantitative hot-spot analysis is required because the Project “affect[s] intersections that are at Level-of-Service D, E, or F with a significant number of diesel vehicles,” or that could fall to these low levels-of-service because of increased diesel truck traffic “related to” the Project. 40.C.F.R. § 93.123(b)(1)(ii). Caltrans’ Air Quality Conformity Analysis shows that as of 2019, both North Avenue interchange ramps and one of two American Avenue interchange ramps are already operating at a level-of-service (“LOS”) of D.²⁵⁰ Each of these intersections will be “affected” by the Project, which is alone sufficient to require a hot-spot analysis. 40 C.F.R. § 93.123(b)(1)(ii).

Level-of-service will only further degrade if the Project is built (which is particularly troubling, given the Project’s significant increase in interchange capacity). For instance, under Project Alternatives 1 and 2, four of five North Avenue interchange ramps will operate at an LOS of D or below in 2026 (including two at an LOS of E and one at an LOS of F); under Alternatives 3 and 4, all four ramps operate at an LOS of D or worse (including one at an LOS of E and one at an LOS of F).²⁵¹ By 2046, Caltrans projects that *every* North Avenue ramp will operate at an LOS of F *at all times* under all Project Alternatives.²⁵² Projections for American Avenue are almost as bad. Caltrans projects that in 2026, all four American Avenue ramps will operate at an LOS of D under Alternative 1 and five of six at an LOS of D under Alternative 2.²⁵³ By 2046, half of the American Avenue interchange ramps under Alternative 1 will operate at an

²⁴⁸ County of Fresno, Board Agenda Item 4 (Aug. 24, 2021), <https://fresnocounty.legistar.com/View.ashx?M=F&ID=9718395&GUID=8577DED4-DE90-470C-AF48-65A32680FBCE>.

²⁴⁹ AIR QUALITY CONFORMITY ANALYSIS at 24.

²⁵⁰ *Id.* at 28; AIR QUALITY REPORT at 12.

²⁵¹ AIR QUALITY CONFORMITY ANALYSIS at 30, tbls. D & E.

²⁵² *Id.* at 30-31, tbls. F & G.

²⁵³ *Id.* at 31-32, tbls. H & I.

LOS of F and all six ramps at an LOS of F under Alternative 2.²⁵⁴ Caltrans concedes that these ramps qualify as “intersections that are at a level of service (LOS) D, E, or F” and that the “project does lower the LOS at both the North/Cedar Avenue and American Avenue intersections.”²⁵⁵ Yet it offers no comprehensible explanation for why its own conclusions about worsening LOS do not necessitate a hot-spot analysis under 40 C.F.R. section 93.123(b)(1)(ii). Proceeding with FHWA’s conformity determination under these circumstances would amount to clear legal error.

c. Caltrans ignores EPA’s Guidance showing that a Hot-Spot Analysis is required

The measure of what constitutes a project of air quality concerns is not within Caltrans’ discretion; EPA’s implementing regulations and guidance govern. These sources are clear that this Project presents significant air quality concerns that require detailed, quantitative examination of localized particulate matter hot spots.

EPA’s list of example projects that would *not* require a hot-spot analysis is instructive. These include:

- Any new or expanded highway project that primarily services gasoline vehicle traffic (i.e., does not involve a significant number or increase in the number of diesel vehicles), including such projects involving congested intersections operating at Level-of-Service D, E, or F;
- An intersection channelization project or interchange configuration project that involves either turn lanes or slots, or lanes or movements that are physically separated. These kinds of projects improve freeway operations by smoothing traffic flow and vehicle speeds by improving weave and merge operations, which would not be expected to create or worsen PM NAAQS violations; and,
- Intersection channelization projects, traffic circles or roundabouts, intersection signalization projects at individual intersections, and interchange reconfiguration projects that are designed to improve traffic flow and vehicle speeds, and do not involve any increases in idling and capacity.

These examples illustrate the circumstances in which a transportation project would not be expected to result in increases in particulate matter – either because it primarily serves gasoline vehicle traffic or because it will only involve traffic smoothing and alleviate congestion without increasing capacity and thereby inducing or facilitating a greater traffic volume.

The Project neither fits within this list, nor resembles any of these projects that FHWA has concluded would not ordinarily present air quality concerns. To the contrary, these examples make clear that a hot-spot analysis *is* required here. The interchanges mostly directly affected by the Project serve well over EPA’s 8% illustrative threshold of significance for average daily truck traffic composition. Caltrans estimates that 33% of North Avenue interchange traffic comprises diesel trucks at the 2019 baseline; this proportion stays roughly the same in its 2026 and 2046 Build projections.²⁵⁶ Likewise, 9% of American Avenue interchange traffic comprises diesel trucks as of 2019; this ratio increases to 12% under both 2026 and 2046 Build

²⁵⁴ *Id.* at 32-33, tbls. J & K.

²⁵⁵ *Id.* at 24.

²⁵⁶ *Id.* at 25, tbl. C.

projections.²⁵⁷ This highway, in other words, serves unusually high numbers of diesel vehicles, and the Project interchanges themselves “enable freight truck movement from industry in South Fresno to the [State Route] 99 mainline.”²⁵⁸ And, as discussed above, the Project is designed specifically to increase capacity, doubling intersection lanes and add other major capacity-expanding highway elements.

Also illustrative, EPA’s 2006 guidance on qualitative PM hot-spot analyses walks through the design of analyses for projects that closely resemble this one. Appendix B to that Guidance sets forth a few illustrative examples of hot-spot analyses to “summarize the types of methods and data that can be considered in qualitative PM_{2.5} or PM₁₀ hot-spot analyses.”²⁵⁹ Example B in that list is a project that “entails a major modification to a highway interchange connecting a primary route to an interstate.”²⁶⁰ As here, “[a] significant number of diesel vehicles are expected to use the interchange.”²⁶¹ Unlike here, background concentrations of particulate matter were expected in EPA’s example to decrease as emission from existing sources were decreasing over time and new development was not anticipated.²⁶² Even so, EPA’s Guidance dictated that the agency perform a hot-spot analysis to ensure that the Project would not result in localized particulate matter problems. It certainly would so dictate here. EPA has since superseded the qualitative methods set forth in its 2006 Guidance with its Transportation Conformity Guidance for Quantitative Hot-Spot Analyses in PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas, issued in December 2010, but the examples of projects it offered in 2006 that require a hot-spot analyses remain instructive.²⁶³

2. The Project will contribute far more truck trips and congestion than Caltrans acknowledges.

Caltrans’ existing traffic estimates on their face necessitate a hot-spot analysis. But they also dramatically underestimate growth in traffic and congestion, and resulting increases in particulate matter and ozone emissions, that will result from the Project. First, as described above, the Project is designed specifically to fuel industrial development in South Fresno – including through the nearly 3,000-acre Industrial Park and development projected under the South Central Specific Plan. Yet Caltrans disclaims likely increases in traffic associated with this and other industrial buildout. And second, Caltrans ignores evidence (including from its own studies) showing that the expansion in highway capacity that is core to the Project will itself induce more car and truck traffic.

a. Caltrans ignores the Project’s effects on nearby industrial growth

The law is clear is clear that FHWA must consider the impacts of planned industrial development in the Project area on traffic and the associated emissions burdens that will result

²⁵⁷ *Id.* at 26, tbl. D.

²⁵⁸ LEE AND PATTERSON EXPERT REPORT at 3.

²⁵⁹ U.S. EPA, *Transportation Conformity Guidance for Qualitative Hot-spot Analyses in PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas* at 26 (Mar. 2006), https://www3.epa.gov/ttn/naaqs/aqmguidance/collection/cp2/20060301_otaq_hot-spots_analysis_transportation_conformity.pdf.

²⁶⁰ *Id.* at 28.

²⁶¹ *Id.*

²⁶² *Id.*

²⁶³ Quantitative Hot-Spot Guidance at 1 n.2.

from the Project. The transportation conformity statute requires FHWA to base its conformity determination on “the most recent estimates of emissions, . . . determined from the most recent population, employment, travel, and congestion estimates” 42 U.S.C. § 7506(c)(1)(B). In service of these requirements, the transportation conformity regulations require hot-spot analyses to estimate “total emissions burden which may result from the implementation of the project, summed together with future background concentrations” in “area[s] substantially affected by the project.” 40 C.F.R. § 93.123(c)(1). Nearby industrial sources that could contribute particulate matter emission to the project area must thus be fully accounted for in hot-spot analysis, either as emissions that result from implementation of the project or in the estimate of future background concentrations.²⁶⁴ EPA’s PM Hot-Spot Guidance instructs that “[n]earby sources,” such as industrial developments, need to be included in the hot-spot analysis as project emissions if the project would “affect [those] nearby sources” or, in other words, cause those source emissions to “change between build and no-build scenarios.”²⁶⁵ EPA provides as an example of a project that could affect nearby sources one whose “primary purpose is to accommodate future growth in freight and goods movement.”²⁶⁶

This is just such a project. Caltrans itself identifies that the primary need for the interchange expansion is to accommodate traffic, particularly large trucks, that is “expected to increase in the project area due to the implementation of planned development on both sides of the highway.”²⁶⁷ Although the Air Quality Conformity Analysis does not specify what this planned development comprises, the record is clear that it stems from projects pending County and City approval that are intended to promote massive industrial buildout adjacent to both the American Avenue and North Avenue Interchanges.

As discussed in Section I above, the County has been planning since at least 2017 to provide for the buildout of nearly 3,000 acres of new industrial development through the County Industrial Park in Malaga adjacent to the American Avenue interchange. According to County estimates, the Park will accommodate approximately 19-million square feet of warehouse and other commercial/industrial space; other estimates place this number closer to 60 million square feet.²⁶⁸ This buildout alone would generate between four and 17 million truck trips annually in the Fresno area – most of which would likely utilize the American Avenue interchange, the Industrial Park’s closest connection point to Route 99.²⁶⁹ None of this new traffic is accounted for in the Air Quality Conformity Analysis.

Nor are the particulate matter emissions expected to result from the industrial buildout itself included in the current conformity analysis. This is legal error. Exchanges between the County and Caltrans makes clear that the Industrial Park relies on the interchange expansion to go forward; indeed, County staff went so far as to specify the number of lanes that the American Avenue interchange would require to provide capacity for traffic generated by the Industrial Park.²⁷⁰ These and other sources make very clear that a “primary purpose” of the American Avenue interchange expansion “is to accommodate future growth” at the Industrial Park site.

²⁶⁴ Quantitative Hot-Spot Guidance at 96.

²⁶⁵ *Id.*

²⁶⁶ *Id.*

²⁶⁷ FINAL EIR/EA at 5.

²⁶⁸ Weaver, *supra* note 134.

²⁶⁹ *Id.*

²⁷⁰ See section I.C, Factual and Legal Background, *supra*.

The Industrial Park thus qualifies as a “nearby source” that “would be affected by the project” and whose particulate matter emissions must be accounted for in the conformity determination as Project emissions.²⁷¹

A similar situation holds at the North Avenue interchange. North Avenue is the primary interchange serving industrial growth anticipated under the City of Fresno’s pending South Central Specific Plan. South Central Fresno, as demarcated by the City, covers 5,567 acres (8.7 square miles) in the triangle extending south of the junction between State Routes 41 and 99 and east into the community of Malaga. The City General Plan identifies the South Central Fresno as “one of four priority areas for investment and study.”²⁷² In June 2024, just as FHWA was opening the instant comment period, the City issued the draft South Central Specific Plan and circulated its draft EIR. A map depicting the overlay of the South Central Fresno Specific Plan area with disadvantaged unincorporated communities is provided in in Figure 7 below.

Figure 7: Map of Disadvantaged Unincorporated Communities Within South Central Fresno Specific Plan Area²⁷³

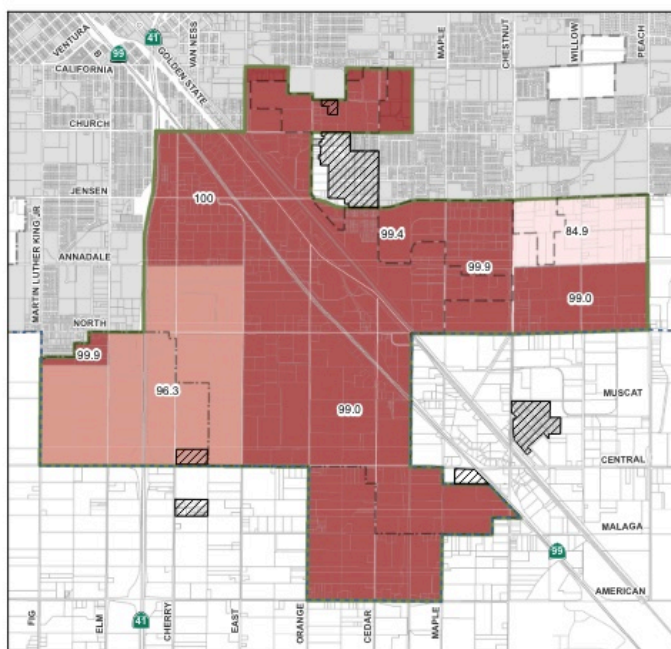
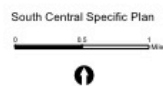


Figure 1-5: Disadvantaged Unincorporated Communities and Calenviroscreen 4.0



Source: 2021 CalEnviroScreen 4.0 (CEHHA, CalEPA) and City of Fresno GIS Data Prepared by the Planning and Development Department

²⁷¹ Quantitative Hot-Spot Guidance, *supra* note 176 at 83.

²⁷² City of Fresno, *Plans & Projects Under Review*, <https://www.fresno.gov/planning/plans-projects-under-review/#south-central-specific-plan-scsp>.

²⁷³ City of Fresno, *Draft Environmental Impact Report for the South Central Specific Plan* at 2-1 (May 2024), <https://www.fresno.gov/wp-content/uploads/2024/05/2.-Draft-Environmental-Impact-Report.pdf>.

Much like the Industrial Park in Malaga, the purpose of the South Central Fresno Specific Plan is to promote industrial development in and around Calwa and throughout the South Central Fresno planning area. According the Plan’s draft EIR, the purpose of the Plan is to promote “development of underutilized lands within the planning area.” Under the Plan, “[g]rowth in the Plan Area would be primarily industrial, with smaller amounts of office and retail space.” The Plan Area currently support 19.6 million square feet of nonresidential (industrial and commercial) development. The Plan will more than double this, adding an estimated 18.5 million square feet of industrial uses, 10 million square feet of commercial/office uses, and 1.2 million square feet of retail and public facilities.²⁷⁴ Most of this buildout, according to the City, would take place by 2040 – within the timeframe considered in Caltrans’ Air Quality Conformity Analysis.²⁷⁵ In addition to car and truck traffic associated with the buildout, the new development under the Plan would result in exceedance of San Joaquin Valley Air Pollution Control District daily screening thresholds for PM2.5 and PM10, as well as for NOx (a PM precursor), carbon monoxide, and reactive organic gas. By 2040 operation of the new development is anticipated to add 148 tons per year of PM10 and 39.6 tons per year of PM2.5.²⁷⁶ At least some of this development is anticipated to comprise one or more distribution centers “that result in heavy daily truck use” and diesel particulate matter emissions.²⁷⁷

The following maps of existing and planned land use in the South Central Specific Plan area show the enormity of buildout of heavy industry (as well as light industry and other business and commercial facilities) that will occur along Route 99 adjacent to the Project sites.

\\

\\

\\

\\

\\

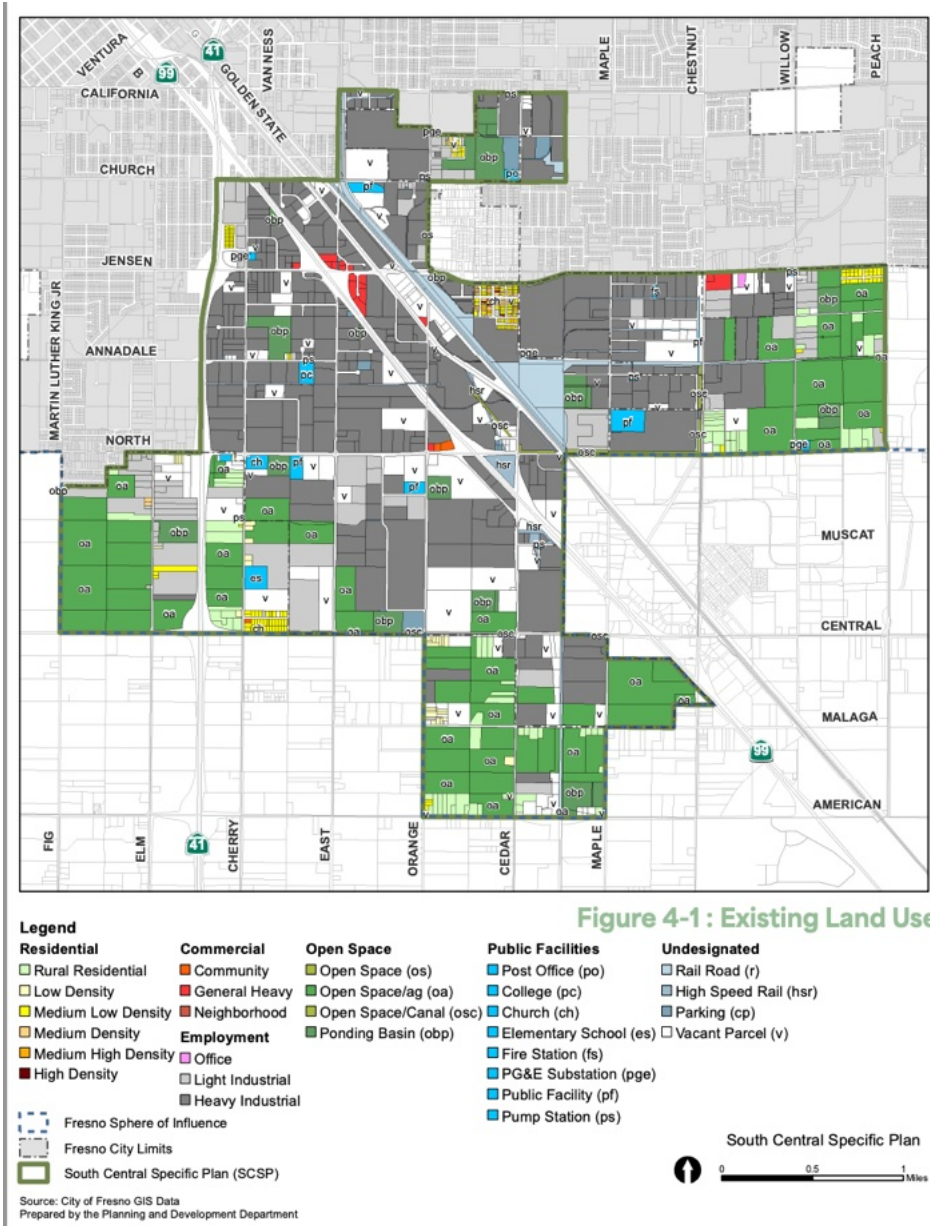
²⁷⁴ Draft EIR for South Central Specific Plan at 2-1.

²⁷⁵ *Id.* at 2-1.

²⁷⁶ *Id.* at 4.3-27 (Table 4.3-6); *see generally*, Exhibit 21, University of California, Merced, *Fresno Community Environmental Health Impact Assessment* (Apr. 2024) (documenting disparities in South Fresno from exposure to emissions from diesel truck traffic).

²⁷⁷ *Id.* at 4.3-30.

Figure 8: Map of Existing Land Use in South Central Specific Plan Area

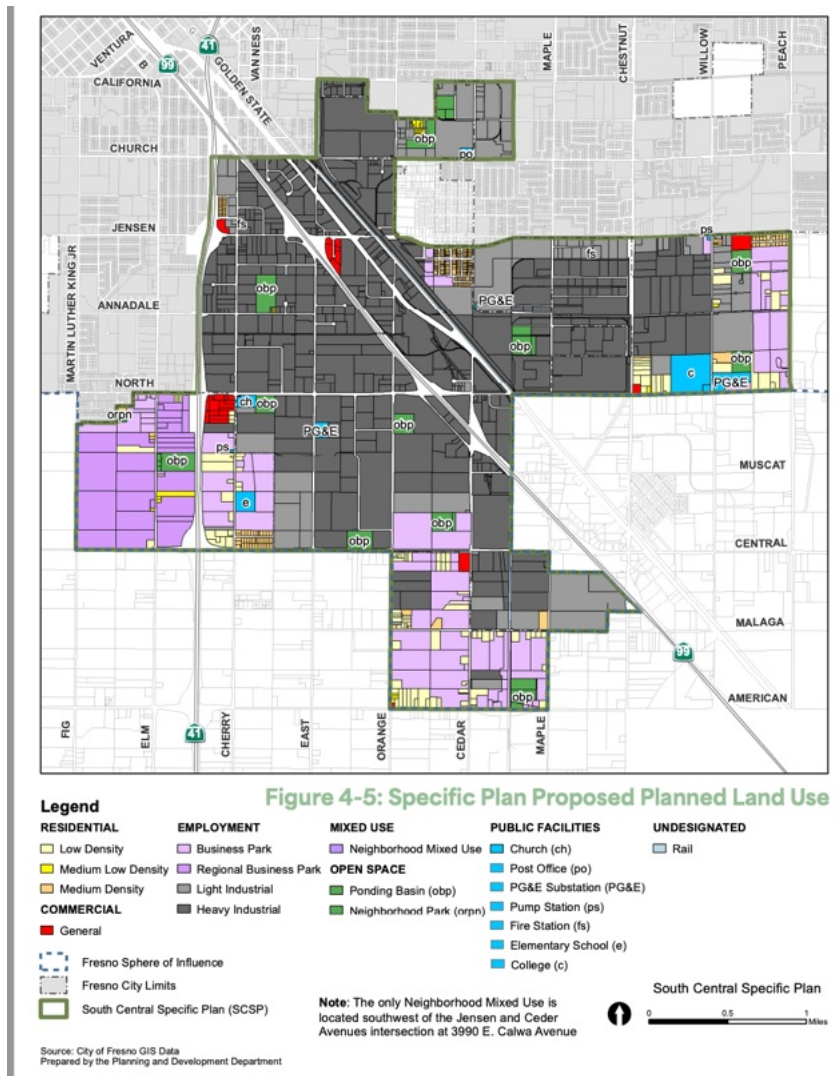


||

||

||

Figure 9: Map of Planned Land Use Under South Central Specific Plan



Again, none of this anticipated new truck traffic or criteria pollution is accounted for even mentioned in Caltrans’ conformity analysis or interagency consultation memorandum. This is so even though Caltrans was well aware of the South Central Specific Plan and its connection to the Project when it created these documents. Caltrans’ Draft EIR/EA, circulated on September 9, 2021, notes that the City began working on the “South Central Specific Plan’ (previously the South Industrial Priority Area)” in March 2019 with the goal to “set up infrastructure properties, especially in the State Route 99 corridor, where a variety of distribution needs can be met.”²⁷⁸ Caltrans also identified the American and North Avenue interchanges as “primary points of access for the existing and developing industrial and commercial business in this area.”²⁷⁹ It went even further in the January 2023 Final EIR/EA, correcting the Growth

²⁷⁸ DRAFT EIR/EA at 36-37.

²⁷⁹ *Id.* at 37.

section of the environmental analysis to include references to the South Central Specific Plan and making other changes requested by the City to integrated the Plan into the document.²⁸⁰

Although Caltrans refused Petitioners' requests to defer the Project until the City completes the South Central Specific Plan and to factor anticipated traffic and buildout attributed to the Plan into its environmental analyses, it was clearly aware of the Plan and its anticipated traffic and air pollution impacts.²⁸¹ And it expressly designed the Project to accommodate the influx of traffic that would attend the new goods movement and industrial facilities that the Plan would site close to Project interchanges. The Conformity Analysis must be corrected to include these omitted traffic impacts and to add the South Central Specific Plan development as a nearby source that is likely to be affected by the Project.²⁸²

b. Caltrans ignores evidence that the increase in highway capacity will induce additional demand

Caltrans' Traffic Operations Analysis Report, which informed its Air Quality Conformity Analysis, assumes that "traffic would not increase as a result of the project."²⁸³ Caltrans is wrong. Caltrans ignores a robust scientific consensus (including its own studies) on the effect of highway expansion projects on inducing car and truck traffic – the easier it is to drive, the more driving will occur.²⁸⁴ Literature on this phenomenon, called "induced demand," is not new – in fact, it goes back at least sixty years,²⁸⁵ and Caltrans itself has been partner to studies on the impacts of highway interchange expansion on induced demand and resulting increases in vehicle miles traveled (VMT).²⁸⁶

As Dr. Lee and Dr. Patterson explain in detail in the attached expert report, the phenomenon of "induced demand" results from the fact that "demand for vehicle travel is 'elastic.'"²⁸⁷ This means that "demand for vehicle travel responds to changes in the perceived cost of travel, which is generally measured in travel time but also in other measures of travel impedance (DeCorla-Souza and Cohen 1999)."²⁸⁸ Removing barriers to travel – by, for instance, making ramps and highway entry more accessible, removing impedances to truck movement and traffic flow, and allowing for greater vehicle speed – changes user behavior: "new trips are generated, travelers switch modes to now drive, travelers take longer trips to further-away

²⁸⁰ FINAL EIR/EA at 232-34.

²⁸¹ *Id.* at 276-77. Shockingly, Caltrans failed even to factor the South Central Specific Plan and County Business and Industrial Park into its cumulative impact analysis. *See id.* at 49. Indeed, the only industrial developments it references at all in its cumulative impacts section are two distribution centers completed in 2018. *Id.*

²⁸² Other anticipated industrial development that would not be affected by the Project but will add particulate matter pollution to the Project area must be included in the required hot-spot analysis through estimates of future background pollution.

²⁸³ FINAL EIR/EA at 281 ("Caltrans conducted a Traffic Operations Analysis Report, which determined traffic would not increase as a result of the project. The report found that the project would benefit traffic circulation, because traffic is projected to worsen due to planned growth in the area.").

²⁸⁴ *See* Milam et al., *Closing the Induced Vehicle Travel Gap Between Research and Practice* 10-12 (2017).

²⁸⁵ Volker et al., *Induced Vehicle Travel in the Environmental Review Process*, 2674 J. of the Transp. Rsch. Bd., July 2020, at 468, 469.

²⁸⁶ *See, e.g.,* Elizabeth Deakin et al., *Calculating and Forecasting Induced Vehicle Miles of Travel Resulting from highway Projects: Finding and Recommendations from an Expert Panel*, Report to Caltrans (Sept. 2020), <https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-09-21-sb-743-expert-panel-rpt-fnl-a11y.pdf>.

²⁸⁷ LEE AND PATTERSON EXPERT REPORT at 9.

²⁸⁸ *Id.*

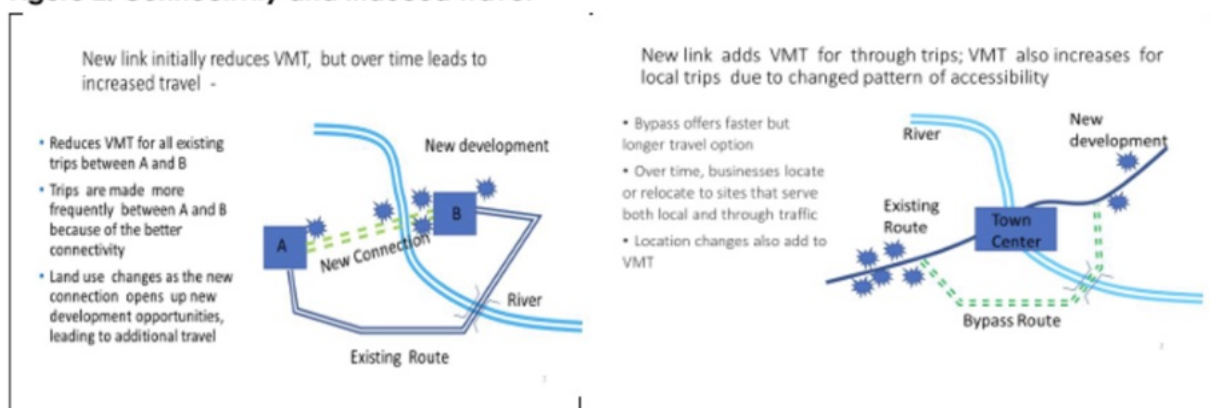
destinations, et cetera.”²⁸⁹ “In the long term, roadway improvements increase not only vehicle speeds but also land development activity, both of which increase vehicle travel demand.”²⁹⁰ In other words, highway projects that reduce friction in travel induce “land use development along the corridor with newly created vehicle access.”²⁹¹ This in turn, leads to more truck and car trips and heavier highway use, further driving up VMT and worsening the congestion the project was intended to alleviate. For these and similar reasons, the logic that expanding highway capacity will reduce traffic congestion is “fundamentally and perpetually flawed.”²⁹²

All the factors that lead to induced demand are present here. As Dr. Lee and Dr. Patterson explain:

This interchange project is designed to increase travel speeds and access by large trucks, which would be expected to shift short-term travel behavior by individuals and firms, and interchanges like this are well-documented to induce growth and land use changes in the areas to which they create access. Induced growth and land use changes induce long-term changes in vehicle travel. And given the high volume of trucks in the SR 99 corridor and South Fresno, and the interchanges being designed specifically to carry large freight trucks, this project would certainly be expected to induce freight vehicle travel.²⁹³

Research has also conclusively established that reducing travel distances – which Caltrans touts as a benefit of providing bidirectional access at each of the Project interchanges – counterintuitively increases VMT. Indeed, a panel of experts instructed Caltrans on this very phenomenon in a 2020 report to Caltrans as part of an interagency collaboration with CARB and the Governor’s Office of Planning and Research on implementation of California Senate Bill 743.²⁹⁴ Figure 2 below, excerpted from this report, shows how “changes in relative accessibility resulting from highway investments led to increased travel” – even when a project “is actually shortening the trip between locations.”²⁹⁵

Figure 2. Connectivity and Induced Travel



²⁸⁹ *Id.* at 11.

²⁹⁰ *Id.*

²⁹¹ *Id.* at 12.

²⁹² *Id.* at 8.

²⁹³ *Id.* at 13.

²⁹⁴ Elizabeth Deakin et al., *Calculating and Forecasting Induced Vehicle Miles of Travel*, *supra* note 285.

²⁹⁵ *Id.* at 3, *see also* LEE AND PATTERSON EXPERT REPORT at 14-15.

For these reasons, Caltrans headquarters has committed the agency to perform an induced travel analysis for capacity-increasing project like this one. By 2020, while this Project was still in the earliest stages of review, “Caltrans ha[d] determined that Vehicle Miles Traveled (VMT) is the most appropriate primary measure of transportation impacts for capacity-increasing transportation projects on the State Highway System” and worked to standardize best practices in the agency to assess induced demand to inform VMT significance determinations.²⁹⁶ And yet, Caltrans inexplicably determined “not to implement Vehicle Miles Travel analysis on this project.”²⁹⁷ As a result, Caltrans has produced traffic, air quality, and resulting transportation conformity analyses with wildly inconsistent traffic numbers and estimates that dramatically understate the extent of diesel truck traffic the Project will generate.

Caltrans’ failure to even consider induced demand in these Project analyses is not surprising. Scholarship on California roadway development from as recently as 2020 has shown “that environmental reviews often fail to accurately analyze the induced demand created by highway expansion projects.”²⁹⁸ Caltrans’ failure to account for induced demand is, however, inexcusable. This omission alone requires FHWA to vacate the conformity determination and insist on a conformity analysis that accurately measures induced demand and VMT and that assesses air quality impacts in light of this vital information.

III. The Project is Substantially Different from the Project Outlined in the Relevant Regional Transportation Plan and Transportation Improvement Program

In addition to failing to conduct a quantitative hot-spot analysis, Caltrans erred in determining that prior regional transportation planning covered this Project as required by EPA’s implementing regulations at 40 C.F.R. section 93.115. Because the Project in its current form is substantially different from the project included in the 2018 Federal Transportation Improvement Program and Regional Transportation Plan, it cannot be the case that the Project “come[s] from a conforming plan and program” as the law requires.²⁹⁹

The implementing regulations for project-level conformity determinations require individual transportation projects to be included in broader regional planning exercises that estimate the emissions impacts of individual projects to ensure that the entire regional plan is compatible with applicable state implementation plans.³⁰⁰ To satisfy this requirement, the project must be specifically included in a conforming regional transportation plan developed through the metropolitan planning process for the metropolitan planning area, otherwise known as a Regional Transportation Plan (“RTP”).³⁰¹ And it must be included in the conforming Federal Transportation Improvement Program (“FTIP” or “TIP”), with an adequately specified

²⁹⁶ Exhibit 13: Caltrans, *Draft Transportation Analysis Framework: Induced Travel Analysis 1* (March 2020).

²⁹⁷ FINAL EIR/EA at 38.

²⁹⁸ Exhibit 12, Alexander et al., *Examining the Externalities of Highway Capacity Expansions in California: An Analysis of Land Use and Land Co California: An Analysis of Land Use and Land Cover (LULC) Using Remote Sensing Technology*, San Jose State University (referencing Jamey Volker, MB, Amy E. Lee, and Susan Handy. “Induced Vehicle Travel in the Environmental Review Process,” 7 Transportation Research Record 2674, 468-79 (2020).

²⁹⁹ 40 C.F.R. § 93.115(a).

³⁰⁰ 40 C.F.R. §§ 93.114, 93.115.

³⁰¹ 40 C.F.R. §§ 93.115(b); 40 C.F.R. § 93.101.

design concept and scope “to determine its contribution to the TIP’s regional emissions.”³⁰² To ensure that the project subject to a conformity determination is the same as the project previously analyzed in regional plans and programs, section 93.115 subsections b and c require that “the project’s design concept and scope have not changed significantly from those which were described in the” RTP and TIP.³⁰³ For the purposes of section 93.115, “[d]esign scope means the design aspects which will affect the proposed facility’s impact on regional emissions, usually as they relate to vehicle or person carrying capacity and control, e.g., number of lanes or tracks to be constructed or added”³⁰⁴

The Project’s “design scope” has changed dramatically since it was evaluated in the relevant regional planning documents, adding significant capacity. The 2019 FTIP on which Caltrans based its conformity determination describes the “South Fresno Interchange Project” only as “Environmental engineering for modifying interchanges” on State Route 99 between American and North Avenues, with a price tag of \$3 million.³⁰⁵ This description does not provide a “design concept and scope” for the project “adequate at the time of the TIP conformity determination to determine its contribution to the TIP’s regional emissions.”³⁰⁶ And even if it did, the design concept and scope have changed significantly since the FTIP was approved, in violation of 40 C.F.R. section 93.115(c)(1). The Project no longer comprises just “[e]nvironmental engineering for modifying interchanges” – a seemingly small-scale modification. Rather it now comprises a comprehensive demolition, expansion, and reconstruction of both the American and North Avenue interchanges, more than doubling the number of ramps, adding three new lanes at each interchange, adding new four-lane bridges and other infrastructure to radically increase traffic capacity, particularly for heavy-duty trucks.³⁰⁷ Reflecting the magnitude of this change in ambition for the Project, Caltrans now estimates the total cost of the Project at over \$130 million – \$127 million more than estimated in the FTIP.³⁰⁸

The same is true of the RTP. Caltrans based its conformity analysis on the 2018 Fresno RTP by the Fresno Council of Governments, which only vaguely describes the Project as: “On Route 99 in Fresno County and near Fresno, from 0.1 mile north of Clovis Avenue Undercrossing to 0.1 mile south of Church Avenue Undercrossing.”³⁰⁹ Contravening the concurrently adopted Federal TIP, the RTP puts the price tag for the Project at \$137,113,000. In a 2020 email to FCOG, Caltrans project manager Chris Gardner acknowledged that, relative to the 2018 RTP, Caltrans would “need to change a few things on the American and North[/]Cedar projects.”³¹⁰ The changes Gardner referred to were fundamental and significant.

³⁰² 40 C.F.R. § 93.115(c).

³⁰³ 40 C.F.R. §§ 93.115(b)(1), 93.115(c)(1).

³⁰⁴ 40 C.F.R. § 93.101 (emphasis added).

³⁰⁵ AIR QUALITY REPORT, app. A at 16 (AR001235); *see also id.* at 16 (2019 FTP Amendment No. 6, updated July 29, 2019).

³⁰⁶ 40 C.F.R. § 93.115(c)(1).

³⁰⁷ *See* FINAL EIR/EA at 11–15.

³⁰⁸ *Id.* at 14–15, 18, 20. The Final EIR notes that Caltrans is picking a hybrid of alternatives 1 and 2 for American Avenue, each with estimated costs of \$48.7 million and \$54.4 million, respectively. The Final EIR selects alternative 2 for North Avenue, with an estimated cost of \$83.9 million.

³⁰⁹ AIR QUALITY CONFORMITY ANALYSIS, app. B at 20.

³¹⁰ *See* Exhibit 29 (Email from Chris Gardner, Caltrans, to Suzanne Martinez, FCOG, RE Caltrans Capacity-Increasing Projects (Nov. 4, 2020)).

The Fresno Council of Governments is now proposing to change the RTP and FTIP listings yet again, underscoring the inadequacy of the listings on which the conformity determination is based. Pending approval, a 2023 amendment to the FTIP and 2022 amendment to the RTP would describe the Project in greater though still not sufficient detail and would split the single Project into two separate projects, one for the American Avenue expansion and one for North Avenue expansion.³¹¹ Neither listing provides information on the change in interchange capacity necessary to evaluate its contribution to regional emissions.

Because the Project does not “come from” a conforming RTP and FTIP within the meaning of the transportation conformity regulations, the Project is subject to additional regulatory criteria and procedures to assess its contribution to regional emissions. These include an analysis as to whether the Project is consistent with the relevant motor vehicle emissions budgets for the area.³¹² Caltrans and FHWA have made no effort to conduct this analysis, relying instead on inclusion in a “conforming plan and program. For this reason alone, the October 2021 conformity determination must therefore be vacated and any action on the Project stayed unless and until FHWA complies section 93.115 requirements.

IV. The Project is Inconsistent with Plans to Attain and Maintain Air Quality for Ozone and Particulate Matter in the Valley

Even setting aside the conformity regulations, it is clear from existing analyses that the Project violates the Clean Air Act’s conformity determination requirements, as set out in section 176(c)(1). The Project does not conform to the basic purpose of existing State Implementation and Maintenance Plans, which seek to remedy severe, existing violations of the Clean Air Act. The Project is also likely to create new violations, exacerbate existing violations, and delay timely attainment of the NAAQs. These nonconformity issues undermine compliance with both the Valley’s SIPs (for ozone and PM2.5) as well as its Maintenance Plan for PM10.

A. Ozone

42 U.S.C. § 7506(c)(1)(A): SIP Purpose

The Project directly contradicts the purpose and guiding principles of the Valley’s ozone SIP, which sets a clear vision to aggressively reduce ozone precursor emissions, with a focus on mobile sources such as heavy-duty trucks. The Valley’s 2022 Plan for the 2015 8-Hour Ozone Standard (“2022 Ozone Plan”) sets forth a comprehensive plan to bring the Valley’s ozone concentrations down to 70 ppb, the 2015 standard set by EPA.³¹³ It recognizes that “EPA designated the San Joaquin Valley as nonattainment for the 2015 8-hour ozone standard, with an Extreme classification and an attainment deadline of 2037.” The 2015 standard promises to address this extreme nonattainment and to secure wide-ranging public health benefits, including a 45-95% reduction in adult ozone exposure, a 15-35% reduction in ozone-induced lung function decrements, and reduction in ozone-associated mortality and morbidity. The guiding principles for the 2022 Ozone Plan include, among other things:

³¹¹ Fresno Council of Governments, *FTIP Formal Amendment* (May 6, 2023), https://www.fresnocog.org/wp-content/uploads/2024/03/FCOG_2023_FTIP_Formal_Amendment_2_-_2022_RTP_Amendment_1_FINALc.pdf.

³¹² 40 C.F.R. § 93.118.

³¹³ San Joaquin Valley Air Pollution Control District, 2022 Plan for the 2015 8-Hour Ozone Standard 1-1, 1-3 (2022) [hereinafter “2022 Ozone Plan”], <https://ww2.valleyair.org/media/q55posm0/0000-2022-plan-for-the-2015-8-hour-ozone-standard.pdf>.

1. With public health as our number one priority, meet the national ambient air quality standards as expeditiously as practicable.
2. Use sound science as the plan’s foundation. This includes efforts to assess public health impacts [and] predict future air quality
5. Given that over 80% of the Valley’s NOx emissions originate from mobile sources, provide a balanced approach to reducing mobile and stationary source emissions.
6. Devise and implement reasonable strategies that involve the public in reducing emissions.³¹⁴

The 2022 Ozone Plan repeatedly emphasizes the last major barrier to ozone attainment in the Valley is mobile source pollution, particularly from heavy-duty trucks:

- “With over 80% of the Valley’s remaining ozone and PM2.5 precursor emissions now coming from mobile sources, . . . additional reductions from heavy-duty trucks and other mobile sources are needed for the Valley to reach federal air quality standards.”³¹⁵
- “Mobile sources are the largest contributor to criteria pollutant and air toxic emissions in the San Joaquin Valley and throughout the State.”³¹⁶
- “Considering the continuing emissions reductions from sources regulated by the District and CARB, and the remaining challenges under federal ozone standards, it is increasingly critical that federal government take action to reduce emissions from sources under federal regulatory control.”³¹⁷
- “[T]he Valley has reached a point where attainment of the health-based standards established under the Federal CAA is not viable without significant quantifiable and enforceable reductions in emissions from mobile sources that fall exclusively under federal jurisdiction such as interstate heavy-duty trucks,”³¹⁸

Rather than move the Valley expeditiously towards its goals and prioritize reduction in heavy-duty truck traffic, the Project directly contradicts the “implementation plan’s purpose of eliminating or reducing the severity and number of violations of the national ambient air quality standards and achieving expeditious attainment of such standards.”³¹⁹ As discussed above, Caltrans estimates that the Project will increase annual average daily traffic (AADT) from trucks at the American Avenue interchange by 94% and 85% in 2026 and 2046, respectively, relative to the No Build alternative.³²⁰ And Caltrans’ estimates do not even account for the 4 to 17 million additional truck trips from the Industrial Park, which the Project will facilitate.³²¹

42 U.S.C. § 7506(c)(1)(B): New, Exacerbated, and Perpetuated Violations

³¹⁴ *Id.* at 1-10

³¹⁵ *Id.* at 3-35

³¹⁶ *Id.*

³¹⁷ *Id.*

³¹⁸ *Id.* at 4-3.

³¹⁹ 42 U.S.C. § 7506(c)(1)

³²⁰ AIR QUALITY REPORT, app. B. Estimates for North Avenue Alternatives 1 and 2. Estimate for American Avenue Alternative 2.

³²¹ Exhibit 25, Gregory Weaver, *Will California expand a highway in America’s most polluted city? Yes.*, FresnoLand (Mar. 7, 2023), <https://fresnoland.org/2023/03/07/south-fresno-interchange-expansions/>.

The increase in truck traffic will increase ozone emissions and thereby “increase the frequency or severity of [an] existing violation” and “delay timely attainment” of the ozone NAAQS in the Valley.³²² One of the primary ozone precursors is NO_x, and “over 80% of the Valley’s NO_x emissions originate from mobile sources.”³²³ Caltrans waives away any responsibility to estimate the impact of the Project on NO_x and resulting ozone concentrations because it asserts there are “no project-level analysis tools or approved guidelines for ozone”³²⁴ – a fact that derives from ozone’s unique behavior as a regional pollutant, and the product of regional chemical imbalances in the atmosphere.³²⁵ But this only establishes the difficulty in estimating how the Project’s NO_x emissions will increase ozone concentrations. It does not eliminate FHWA’s responsibilities to ensure that the Project will not create new or worse violations of the ozone NAAQs in the Valley or delay timely attainment. Caltrans’ analyses make no attempt to establish these dimensions of conformity. Nor could they. As Caltrans concedes, the Project will generate significantly more truck trips and thus more NO_x and worse ozone concentrations across the Valley.³²⁶

B. PM2.5

42 U.S.C. § 7506(c)(1)(A): SIP Purpose

The Project does not conform to the purpose of the 2018 PM_{2.5} State Implementation Plan. Like the 2022 Ozone Plan, the 2018 PM_{2.5} Plan is designed to bring the Valley in line with increasingly health-protective standards for PM_{2.5} concentrations. The 2018 PM_{2.5} Plan posits that “meeting federal standards will pay substantial dividends in terms of reducing costs associated with emergency room visits and hospitalization for heart and lung related causes, lost work and school days and reducing incidences of asthma.”³²⁷ It also notes that PM_{2.5} exposure contributes to 7,500 premature deaths each year across the state.³²⁸

The 2018 PM_{2.5} Plan focuses on strategies to reduce emissions from mobile sources, including trucks. Ammonium nitrate is the most common species of PM_{2.5} by weight across the Valley and Fresno, accounting for 41% of Fresno’s annual average PM_{2.5} weight – 55% on Fresno’s top 10% days.³²⁹ Ammonium nitrate is a byproduct of NO_x, which results “largely from fuel combustion during multiday stagnation events.”³³⁰ “Because NO_x is a significant PM_{2.5} precursor and the Valley is NO_x-limited, the District relies heavily on NO_x emissions to reduce PM_{2.5} emissions.”³³¹ Diesel trucks account for roughly 40% of all NO_x emissions in the Valley.³³² The Plan emphasizes that mobile sources, including trucks, are the single biggest obstacle to attaining the 2012 PM_{2.5} standard.³³³

³²² 42 U.S.C. § 7506(c)(1)

³²³ 2022 Ozone Plan at 1-15

³²⁴ FINAL EIR/EA at 98

³²⁵ 2022 Ozone Plan at 2-6.

³²⁶ *Env’t Def., Inc. v. E.P.A.*, 509 F.3d 553, 560 (D.C. Cir. 2007) (affirming EPA’s interpretation of section 7506(c)(1)(A), regarding conformity to an implementation plan’s purpose, as applying at the “regional level”).

³²⁷ 2022 Ozone Plan at 1.

³²⁸ *Id.*

³²⁹ *Id.* at 3-4

³³⁰ *Id.* at 3-13

³³¹ *Id.* at 2-6

³³² *Id.* at B-7

³³³ *Id.* at ES-1

The 2018 PM2.5 Plan also incorporates a Health Risk Reduction Strategy, which acknowledges that not all particles smaller than 2.5 microns are equally harmful, and focuses efforts on the most harmful pollutants, most of which derive from diesel exhaust.³³⁴ Among those, organic carbon is “recognized as one of the most biologically reactive of PM2.5 chemical species categories, with ample evidence of high toxicity found in experimental, clinical, and epidemiological studies.”³³⁵ One subset of organic carbon is “found in diesel exhaust and engine oil and is a significant risk factor for lung cancer.”³³⁶ Another target of the Health Risk Reduction Strategy includes particulate metals, as “metals found in PM2.5 produced from combustion of . . . diesel fuel[] and motor oil are recognized as chemical drivers of cardiovascular and respiratory morbidity and mortality.”³³⁷

By significantly increasing traffic and daily truck trips, the Project conflicts with the SIP’s purpose and central strategy to reduce PM2.5 pollution from mobile sources.

42 U.S.C. § 7506(c)(1)(B): New, Exacerbated, and Perpetuated Violations

The Project will exacerbate the Valley’s existing serious nonattainment of the PM2.5 standard. Even on Caltrans’ underestimation, the Project will increase PM2.5 emissions at American Avenue by roughly 50% in 2026.³³⁸ Because this localized violation will “increase the frequency or severity of any existing violation,” the Project is not in conformity with the Valley’s 2018 PM2.5 Plan.³³⁹

Though Caltrans estimates that the Project will improve long-run PM2.5 concentrations, it does not explain its counterintuitive conclusion. Caltrans estimates, perplexingly, that PM2.5 emissions in the No Build alternative will jump by almost 500% between 2026 and 2046, which in turn makes the Build alternatives look like reductions in emissions. The relative decrease in PM2.5 in the Build alternatives does not align with Caltrans’ other Build alternatives estimates – that total truck trips will significantly increase at the American Avenue interchange and across the Project area as a whole³⁴⁰ and that level-of-service will degrade at both American and North Avenue intersections.³⁴¹

C. PM10

42 U.S.C. § 7506(c)(1)(A): Maintenance Plan Purpose

The Valley is subject to a Maintenance Plan to ensure it will stay in attainment with the PM10 NAAQS into the future, including through ongoing monitoring, control, and verification programs.³⁴² The general purpose of a Maintenance Plan is to ensure that the gains of a prior SIP are not lost – to provide “for the maintenance of the national primary ambient air quality

³³⁴ *Id.* at 3-6. Though ammonium nitrate is generally considered lower toxicity, and the pathological mechanism for ammonium nitrate remains unclear, epidemiological studies have linked ammonium nitrate concentrations with negative health consequences like pre-term birth. *Id.* at 3-13–14.

³³⁵ *Id.* at 3-10

³³⁶ *Id.*

³³⁷ *Id.* at 3-12

³³⁸ AIR QUALITY REPORT at 50.

³³⁹ 42 U.S.C. § 7506(c)(1)(B)(ii)

³⁴⁰ AIR QUALITY REPORT, App. B.

³⁴¹ Compare AIR QUALITY REPORT at 12 with *id.* at 50 (Alternative 1).

³⁴² San Joaquin Valley Air Pollution Control District, 2007 PM10 Maintenance Plan and Request for Redesignation (2007) [hereinafter “2017 PM10 Maintenance Plan”], https://www.valleyair.org/Air_Quality_Plans/docs/Maintenance%20Plan10-25-07.pdf.

standard for such air pollutant in the area concerned for at least 10 years after the redesignation.”³⁴³

The Valley is already falling short of the Maintenance Plan’s purpose. It is currently violating the PM10 NAAQS, and it has the second-highest number of days exceeding the PM10 NAAQS among all air basins – both in nonattainment and maintenance.³⁴⁴ The Project will make this situation worse by significantly exacerbate PM10 pollution in South Fresno and thus directly contradict the purpose of the PM10 Maintenance Plan.

42 U.S.C. § 7506(c)(1)(B): New, Exacerbated, and Perpetuated Violations

Caltrans’ own analysis – which erroneously ignores induced demand and impacts of planned industrial buildout – shows that the Project will “cause or contribute to any new violation of any standard” by aggravating PM10 pollution. According to Caltrans’ Air Quality Report, the Project will increase PM10 emissions at the American Avenue interchange by 70% by 2026 and over **ten-fold** by 2046 relative to the No Build alternative (from 0.024 lbs/peak hour under the 2046 No Build alternatives to between 0.229 and 0.233 lbs/peak hour under both Build alternatives).³⁴⁵

Caltrans tries to avoid the consequences of this projected pollutant increase by reference to the hot-spot rules, noting that EPA and FHWA concurred in Caltrans’ assessment that the Project is not of air quality concern.³⁴⁶ Setting the error of this assessment aside, it has no bearing on the clear statutory violation at issue here. The statute declares that new or worsened criteria pollution violations in plan areas are unacceptable. Federal support for the Project is thus a clear, facial violation of the Clean Air Act.

Caltrans’ understanding of the regulatory framework is also fundamentally flawed. The regulatory criteria for projects of air quality concern simply get at *whether* the agency needs to conduct a detailed quantitative hot-spot analysis to analyze local particulate matter pollution impacts. Here, Caltrans has skipped ahead and conducted its own analysis of these local pollution impacts, finding that the Project will in fact contribute to localized violations of the NAAQS (worsening PM10 pollution by 950% by 2046). This is so despite a host of methodological flaws that produce severe underestimates in its emissions evaluation. Such local violations are exactly what the statute seeks to prevent.³⁴⁷

V. Caltrans and FHWA Did Not Sufficiently Engage the Public or Interagency Consultation Partners

The transportation conformity regulations require “interagency consultation” with Federal, State, and local consultation partners as well as a “proactive public involvement process” to inform the conformity determination and its underlying analyses. 40 C.F.R. § 93.105(a), (e). FHWA and Caltrans have failed both consultation requirements and, in the

³⁴³ 42 U.S.C. § 7505(a)

³⁴⁴ U.S. Environmental Protection Agency, Air Quality Design Values (June 12, 2024), <https://www.epa.gov/air-trends/air-quality-design-values#report> (analysis of 2022 PM10 data).

³⁴⁵ AIR QUALITY REPORT at 38.

³⁴⁶ FINAL EIR/EA at 95

³⁴⁷ PM2.5 and PM10 Hot-Spot Analyses in Project-Level Transportation Conformity Determinations for the New PM2.5 and Existing PM10 National Ambient Air Quality Standards, 71 Fed. Reg. 12468-01, 12471.

process, have fallen well short of their commitments to meaningfully engage impacted communities and reduce disparities in the siting and development of transportation projects.

FHWA relies for compliance with section 93.105 interagency consultation partners on a July 2, 2020 memorandum that Caltrans circulated to the U.S. EPA, Fresno Council of Governments, Fresno Transportation Authority, San Joaquin Valley Air Pollution Control District, and the California Air Resources Control Board, among agencies.³⁴⁸ The seven-page memorandum asked the interagency consultation partners to concur in Caltrans' assessment that the Project is not a "Project of Air Quality Concern." It did not attach or reference any documentation or analysis to support this assessment.

The consultation memorandum was sufficiently incomplete and misleading that agency consultation partners were unable to make an informed decision whether a hot-spot analysis was required, whether the Project was adequately included in the RTP and FTIP, or on other dimensions of the conformity analysis. Among its flaws:

- The memorandum states that "[a]ll studied interchanges" at American Avenue "are currently operating at acceptable LOS during peak travel hours." This conclusion improperly discounts that the American Avenue intersections are already operating at LOS of "D" or below, as well as the transportation conformity regulations that deem the Project one of air quality concerns on this basis alone.
- The memorandum states that "[a]ll studied" North Avenue interchanges "are currently operating at acceptable LOS" with the exception of three locations operating at LOS "F" during AM peak hour travel. This statement also contradicts Caltrans' conclusion that three of four North Avenue interchanges are operating at LOS "D," which is again sufficient to make the Project one of air quality concern.
- The memorandum fails entirely to inform interagency consultation partners that the Project will significantly degrade LOS at all interchanges, so much so that by 2046, all studied North Avenue intersections and between half and all American Avenue intersections will be operating at LOS "F." Disclosure of this information would again have allowed the agency consultation partners to see that regulatory criteria require a hot-spot analysis for the Project.
- Caltrans asserts that "SR 99 traffic will not change due to interchange improvements." This conclusion is contradicted by Caltrans' own projections showing significant increases in overall AADT at both North and American Avenues and significant increases in Truck ADT at American Avenue under all studied alternatives.
- Caltrans asserts that "[n]o new truck traffic will be added, as the proposed project will be built to serve the already established commercial and retail industry." This conclusion is again contradicted by its own findings on significantly

³⁴⁸ AIR QUALITY CONFORMITY ANALYSIS at 34-47.

expanded vehicle traffic, particularly for trucks at the American Avenue interchange.

- The interagency consultation memorandum is entirely silent on the Project’s satisfaction of regional conformity requirements under 40 C.F.R. section 93.115, which was needed to inform consultation partners’ input on this conformity criterion.

Perhaps most egregious is Caltrans’ false assertion that there will be no “new industrial/commercial/trucking facility” that might make use of the Project and that any increase in traffic over baseline would be attributable only to “growth associated with anticipated future population.” Caltrans knew otherwise. Caltrans itself acknowledges in the memorandum that overall AADT, including Truck ADT at American Avenue, will increase over the “No Build” alternative. This margin can only be attributable to the Project and the traffic and development it will induce. Further, as discussed above, Caltrans was well-aware during the planning process of both the proposed County Industrial Park and the City of Fresno South Central Specific Plan – and the massive projected buildout in industrial development they provide for along State Route 99, clustered around the American and North Avenue interchanges. Indeed, email exchanges from fall and winter 2021 and responses to City comments on the Draft EIR/EA show that Caltrans was actively coordinating with both the County and the City to ensure that the interchanges would be expanded enough to accommodate increases in heavy-duty truck traffic resulting from projected industrial buildout in the Project area.

Caltrans’ failure to inform interagency consultation partners of its own knowledge of and efforts to coordinate and design the Project to facilitate this industrial buildout has already drawn sharp rebuke by misled agencies. One such consultation partner, the California Air Resources Board, (“CARB”) wrote Caltrans Region 6 Director Diana Gomez a letter dated May 12, 2023, criticizing the agency for failing to “consider the cascade of proposed industrial land use projects that the Project’s interchange upgrade components will serve.” As CARB Deputy Executive Officer Chanell Fletcher explains:

For example, since Caltrans initiated its analysis, Fresno County has proposed rezoning and converting approximately 3,000 acres of agricultural land just east of the Project to industrial zoning and constructing a Fresno County Industrial and Business Campus. Initial development has been outlined for the 3,000-acre industrial campus, with an anticipated full buildout of 15 years and support of 19 million square feet of industrial/commercial building inventory. The Fresno County Board of Supervisors approved the initial feasibility study for this project on August 24, 2021, and Caltrans released the draft EIR/EA for the Project on October 14, 2021. While the County approval of the Fresno County Industrial and Business Campus feasibility study was close in time to Caltrans’ release of the draft EIR/EA for the Project, such a significant land use development with expected industrial development served by the Project’s upgrades should have been considered in Caltrans’ cumulative impact analysis. Caltrans, however, did not evaluate these foreseeable future projects in the draft EIR’s or the FEIR’s cumulative impact analysis. Indeed, it is unclear whether Caltrans conducted a

cumulative Impact analysis in its draft EIR and FEIR; some cumulative projects are listed on page 4, in the “Affected Environment” section, but it includes only a limited range of projects (dating from as long ago as 1870), does not seem to actually analyze the cumulative effects between the Project and those other listed projects, and does not mention the notable industrial and commercial development described above.³⁴⁹

CARB concluded by “urg[ing] Caltrans to consider” air pollution impacts from “diesel-fueled trucks serving the future industrial and commercial development.”³⁵⁰ CARB’s admonition about the Project’s potential for severe air quality impacts evidences that it was not adequately informed during interagency consultation when it concurred in Caltrans’ assessment that the Project did not present air quality concerns.

In a similar vein, EPA Environmental Engineer for Region 9’s Air Planning Office, Karina O’Connor, sent an email to Caltrans and FHWA on March 16, 2023 “requesting to reopen consultation that the SR-99 South Fresno Interchange project is not a ‘Project of Air Quality Concern’ (POAQC) based on recent information that the project may be associated with impacts from development of the Fresno County Industrial Park.”³⁵¹ This is the same Karina O’Connor who sent Caltrans an email on August 18, 2020 communicating EPA’s concurrence that the project is not one of air quality concern based on the July 2020 interagency consultation memorandum.³⁵² A follow-on email by Karina O’Connor on March 16, 2023 to FHWA Planning and Air Quality Team Leader Patrick Pittenger informed FHWA that Regional Administrator Guzman “is interested in this project and asked for us to reopen consultation,” citing articles about litigation challenging the project and concerns about Caltrans’ failures to disclose the Project’s links to the County Industrial Park to decisionmakers or the public.

FHWA has a formal obligation under these circumstances to reopen interagency consultation on the Project. Indeed, FHWA promised as much in its December 4, 2023 Notice of Motion and Motion for Voluntary Remand, assuring Plaintiffs and the federal court that it would “engage in additional interagency consultation.”³⁵³ To meaningfully do so, it must vacate the October 2022 conformity determination, as well as the July 2020 interagency consultation memorandum and the Air Quality Conformity Analysis. And it must provide interagency consultation partners with information adequate to fully inform their determination whether the project requires a hot-spot analysis, how to conduct the analysis and what data and sources to

³⁴⁹ Exhibit 6, Letter from Chanell Fletcher, Deputy Executive Director for Environmental Justice, California Air Resources Board, to Diana Gomez, District 6 Regional Director, Caltrans (May 12, 2023).

³⁵⁰ *Id.*

³⁵¹ Exhibit 7 (Email from Karina O’Connor, U.S. EPA, to Maya Hidebrand et al., Caltrans (Mar. 16, 2023) (requesting to reopen consultation on Caltrans’ conclusion that the Project is not a “Project of Air Quality Concern”).

³⁵² AIR QUALITY CONFORMITY ANALYSIS at 42.

³⁵³ *See* Federal Case, Dkt. No. 49 at 2.

include in it,³⁵⁴ and whether the project comes from a conforming TIP and RTP or instead requires its own analysis for regional air pollution contributions, among other conformity factors.

In a similar vein, FHWA continues to fall short of its obligations to conduct a “proactive public involvement process” on its conformity determination as required by 40 C.F.R. section 93.105(e). The U.S. Department of Transportation’s (“USDOT”) Equity Action Plan commits its agencies to go above and beyond regulatory minimum consultation requirements, promising that FHWA will give communities impacted by “years of systemically racist transportation decisions” a “greater voice in transportation decisions affecting them.”³⁵⁵ While the undersigned applaud FHWA’s decision to reopen public consultation on its conformity determination, this does not cure the defects in public consultation nor live up to FHWA’s equity commitments.

First, FHWA has released for public review and comment only two documents – the 2020 interagency consultation memorandum and the 2022 Air Quality Conformity Analysis. It did not release for public review and comment additional documents on which FHWA based its October 2, 2022 conformity determination – including, *inter alia*, Caltrans’ “FHWA Submittal Package—Request for FHWA Conformity Determination” dated August 8, 2022 and Caltrans’ “Air Quality Conformity Findings Checklist” and Air Quality Conformity Analysis Cover Letter attached thereto. Nor did FHWA release analyses on which Caltrans expressly relies in creating its Air Quality Conformity Analysis, such as Caltrans’ January 2021 Air Quality Report. Without the full set of documents, the public cannot provide complete comment on materials that inform FHWA’s proposed conformity determination.

Second, Caltrans and FHWA continue to hide from the Project critical information about the purpose, scope, and impacts of the Project necessary to allow the public to fully understand the Project and its air quality implications and to provide intelligent input. This includes, among other things, information about the planned Industrial Park, Caltrans’ coordination with the County to accommodate the Industrial Park, criteria pollutant emissions anticipated from the Industrial Park and other development that will be affected by the Project, and traffic expected to use the Project related to planned and projected industrial development. Nor has the public been informed of interagency consultation partners’ concerns that Caltrans omitted vital information about planned industrial development connected to the Project.

Third, despite repeated exhortation by Friends of Calwa, Fresno BHC, and other community groups, FHWA has still failed to set up a public comment period that provides adequate opportunity for community engagement and input. Counsel assured Plaintiffs that they would be provided with advanced notice of the opening of the comment period. No such advanced notice was provided; instead, Plaintiffs were not informed that the comment period had been opened until several days after FHWA issued its notice. FHWA also minimized community members’ urging to provide a comment period of sufficient length – closer to 90 days than the 30-day minimum – to allow the public to digest and provide meaningful input on

³⁵⁴ See, e.g., 40 CFR 93.105(c)(1)(i) (interagency consultation must include, among other things, “evaluating and choosing a model (or models) and associated methods and assumptions to be used in hot-spot analyses” as well as “choosing conformity tests and methodologies for isolated rural nonattainment and maintenance area”).

³⁵⁵ U.S. DEP’T OF TRANSP., EQUITY ACTION PLAN (2022), https://www.transportation.gov/sites/dot.gov/files/2022-04/Equity_Action_Plan.pdf.

the highly technical information on which this conformity determination is based. FHWA's decision to create a 44-day comment period that concludes on a Sunday has created hardship for would-be commenters.

FHWA's June 20, 2024 public meeting on the conformity determination, attended by over 50 concerned residents and other community stakeholders, reveals the gaps between FHWA's commitments on paper to meaningful public participation and its actions in practice. While Caltrans appropriately agreed to hold a public meeting at a location in South Fresno, it failed to provide signage to the meeting, resulting in residents struggling to identify the location and possibly being deterred from showing up. And the decision to hold only one meeting in Malaga rather than additional meetings in other populous portions of South Fresno like Calwa undoubtedly limited participation. The meeting itself was structured in a format that was alienating to residents and chilled participation. FHWA staff provided no explain about the nature of the Project, the meaning of a "transportation conformity determination," or the analyses on which FHWA was seeking comment. Instead, FHWA staff stated repeatedly that they would only consider comments specific to FHWA's jurisdiction – an inscrutable comment for residents who had no reason to understand the limits of FHWA's jurisdiction or even the meaning of this terminology. FHWA also failed to provide or otherwise ensure availability of audio equipment to make comments audible to meeting participants, resulting in community center staff having to scramble to find a microphone and many comments going unheard by meeting participants.

Perhaps worst of all, FHWA ignored the community's repeated exhortations to provide translation and interpretation services for the predominantly Spanish-speaking residents of South Fresno to allow them to make their voices heard and understood at the public meeting. Instead, FHWA told residents at the meeting that they hoped attendees had brought their own translator with them – which of course residents were unprepared to do, as FHWA had provided no notice of any such requirement. When it became clear that attendees could not understand each other and that the FHWA planning director presiding over the meeting could not himself understand Spanish-speaking commenters, a staff member with Leadership Counsel for Justice and Accountability volunteered to interpret for those who needed it to the best of her ability. The lack of translation or interpretation, the inability of participants to understand each other because of it, and FHWA's admonitions that the meeting would end promptly at 7:30 pm undoubtedly chilled would-be commenters. For the numerous residents who did comment, it was unclear that their words were being accurately or fully transcribed. FHWA created no recording of the meeting, instead relying on hand-written notetaking by staff. The undersigned provide the following link of a recording that they took, with permission of FHWA staff and attendees, of a portion of the meeting illustrating the grave concerns voiced by residents and the barriers that attendees faced because of the lack of translation.³⁵⁶

Finally, attendees observed industry representatives approach and privately converse with FHWA staff after public comment had closed. Irrespective of intent, the after-hours sidebar with industry representatives created the appearance of special access and treatment. Coupled with lack of translation services or efforts by FHWA to make the Project and the conformity analysis

³⁵⁶ <https://www.youtube.com/watch?v=ddetO1ISyHl>.

understandable to residents, experience of the meeting was dispiriting to the more than 50 South Fresno residents and other stakeholders who came out after work hours to learn about the proposed conformity determination and make their concerns heard.

VI. The Project Will Further Systemic Racism and Disenfranchisement of Low-Income Communities of Color Impacted by Decades of Transportation Inequities

FHWA and the U.S. Department of Transportation (“USDOT”) have made repeated commitments to advance environmental justice for disadvantaged communities in their planning and decision-making processes and to devote their resources to repair the damage that a long history of discriminatory transportation planning has done to communities of color across the United States. For instance, USDOT’s Equity Plan and Equity & Access Policy Statement lists environmental justice and civil rights as critical objectives in DOT’s work.³⁵⁷ President Biden has called on agencies, including FHWA, to make “achieving environmental justice part of [the agencies’ mission] by developing programs, policies, and activities to address the disproportionately high and adverse human health, environmental, climate-related, and other cumulative impacts on disadvantaged communities.”³⁵⁸

Only a few months ago, Secretary Buttigieg issued a policy statement acknowledging that the country’s transportation system has “caused negative externalities that disproportionately impact disadvantaged communities” and “created cumulative burdens for communities with environmental justice (EJ) concerns.”³⁵⁹ Such “[n]egative impacts can include exposure to unhealthy or toxic pollutants placed in or near a community, disruptive noise, and safety concerns,” and “result in social harms, including bisecting and segregating neighborhoods and communities and impeding access to essential needs, such as grocery stores, medical facilities, employment, schools, or places of worship.” These damaging transportation projects add to “cumulative pollution burdens” which “increase negative outcomes such as higher morbidity rates and lower rates of economic and social success.” Secretary Buttigieg could have been speaking about this Project.

In this March 2024 policy statement, Secretary Buttigieg doubled down on USDOT’s commitments to “maximize use of resources to facilitate delivery of projects that will provide benefits to communities with EJ concerns.” This includes ensuring in the “environmental review process” for transportation projects “the adequate analysis of the direct, indirect, and cumulative effects of proposed projects to address potential safety, public healthy, and equity impacts.” USDOT also committed to “facilitate interagency coordination” and “coordination with

³⁵⁷ Pete Buttigieg, Secretary of Transportation, Policy Statement: Equity and Access (Dec. 18, 2023), <https://www.transportation.gov/sites/dot.gov/files/2024-04/2023%20USDOT%20Policy%20Statement%20Equity%20and%20Access.pdf>.

³⁵⁸ Exec. Order No. 14,069, 86 Fed. Reg. 7619 (Jan. 27, 2021).

³⁵⁹ Pete Buttigieg, Secretary of Transportation, Policy Statement On Reducing Negative Impacts Of Transportation Projects On Communities With Environmental Justice Concerns (Mar. 2024), https://www.transportation.gov/sites/dot.gov/files/2024-06/Final_for_OST-S3-231213-001_Policy_Statement_S1_Signed.pdf.

appropriate cooperating agencies and stakeholders on the implementation of early and meaningful public involvement.” And USDOT committed to ensuring that its research activities “include EJ and equity analyses, including on disparate health effects (including risks) arising from exposure to pollution another environmental hazards,” as well as to ensuring that this research informs not only USDOT’s decision-making but also that of partner agencies like Caltrans.

FHWA cannot proceed with this conformity determination without giving the lie to these promises. This Project is a concrete manifestation of continuing environmental racism in communities that have been unjustly targeted for over 100 years with transportation and industrial projects incompatible with residential uses and a safe home. The legacy of South Fresno transportation and land use planning is baked through with infrastructural racism. From bisecting and segregating Fresno with the development of Route 99, to redlining the area to further racial segregation, to zoning South Fresno for increasing industrial use, racially discriminatory state practices have shaped, and continue to shape, the physical and social geography of South Fresno and the lives, health, welfare, and social and economic outcomes for residents.³⁶⁰

This history is directly legible in the wildly disproportionate pollution burdens and poor health outcomes that South Fresno residents face today. And it is legible in this Project – including its motivation and the profoundly flawed environmental review and community engagement processes that Caltrans has conducted and that FHWA proposes to greenlight and adopt as its own.

The physical partitioning of South Fresno with the construction of State Route 99 and zoning of South Fresno for industry has created perilous environmental and health impacts for residents. EPA EJScreen maps show that neighborhoods in South Fresno, including the area around Calwa, are in the 90-95th percentiles of the state for short life expectancy. These same communities are also in the 80-95th percentiles of the state for asthma, with the parts of Calwa that are closest to Route 99 in the higher end of this range. As can be seen in the figures below, similar morbidity is not present in North Fresno communities, which enjoy an average life expectancy *20 years longer* than their South Fresno counterparts just miles away.³⁶¹

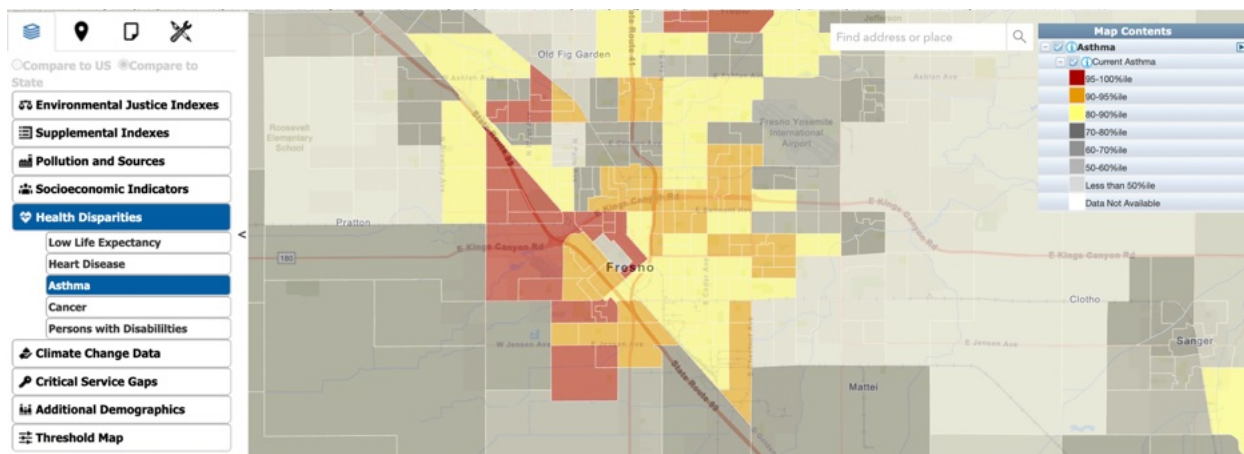
³⁶⁰ See, e.g., Exhibit 10 (Cal. Attorney General’s Office Letter to County of Fresno on Draft General Plan (Mar. 29, 2022); Federal Reserve Fresno Study at 8; LEE AND PATTERSON EXPERT REPORT at 1-2.

³⁶¹ Mark Arax, *In California’s Heartland, a New Resistance Movement Is Taking Root*, New York Times Magazine (June 1, 2023), <https://www.nytimes.com/2023/06/01/magazine/fresno-politics-poverty.html>.

Figure 10: Map of Fresno: Health Disparities – Life Expectancy



Figure 11: Map of Fresno: Health Disparities – Asthma



These health impacts correspond to the areas with the lowest environmental justice indices (EJI) for PM 2.5, ozone, and diesel particulate matter. EJI “measure[s] the cumulative impacts of environmental burden through the lens of human health and health equity” and provides a score to help identify “areas most at risk for the health impacts of environmental burden.”³⁶² Figures 10-14 show that South Fresno has an exceptionally high EJI for PM 2.5, ozone, and diesel particulate matter, placing these communities in the 90-100th percentile of the state for all three pollutants. Relatedly, these same communities are largely in the 80-100th percentiles for

³⁶² U.S. Dept. of Health and Hum. Servs., Environmental Justice Index (Jan. 6, 2023), <https://www.hhs.gov/climate-change-health-equity-environmental-justice/environmental-justice/index/index.html>.

socioeconomic indicators, including percent low-income and residents of color. As Dr. Lee and Dr. Patterson conclude in their expert report, “[t]hese are environmental justice communities.”³⁶³

Figure 12: Map of Fresno: Environmental Justice Index—Particulate Matter 2.5

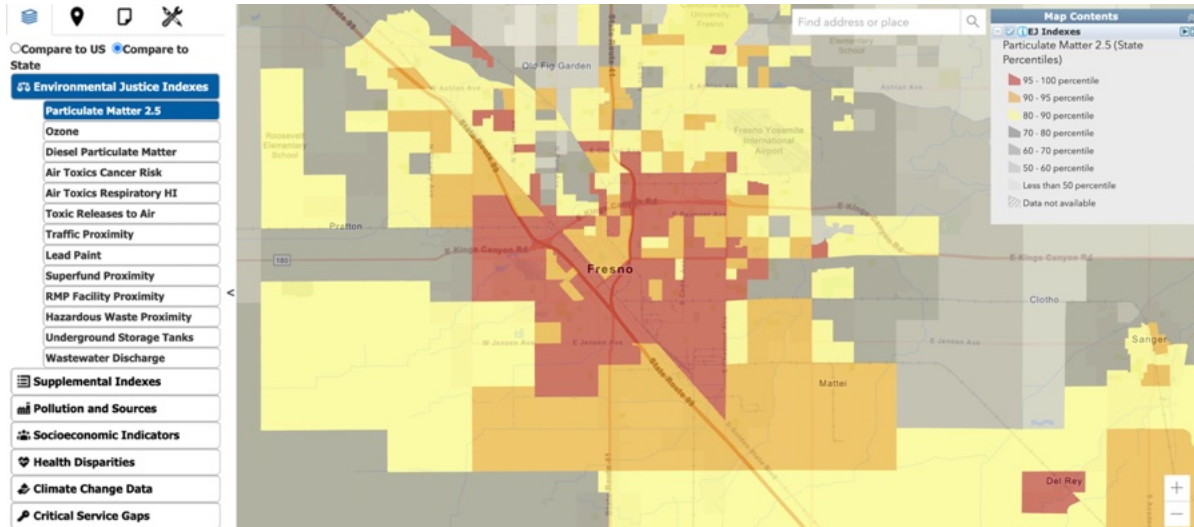
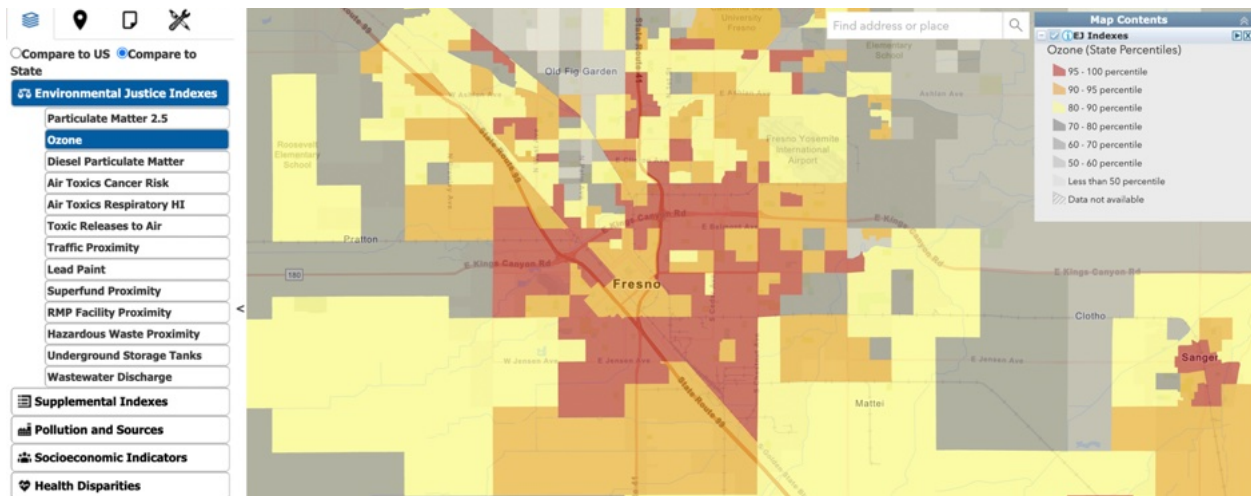


Figure 13: Map of Fresno: Environmental Justice Index – Ozone



³⁶³ LEE AND PATTERSON EXPERT REPORT at 3.

Figure 14: Map of Fresno: Environmental Justice Index – Diesel Particulate Matter

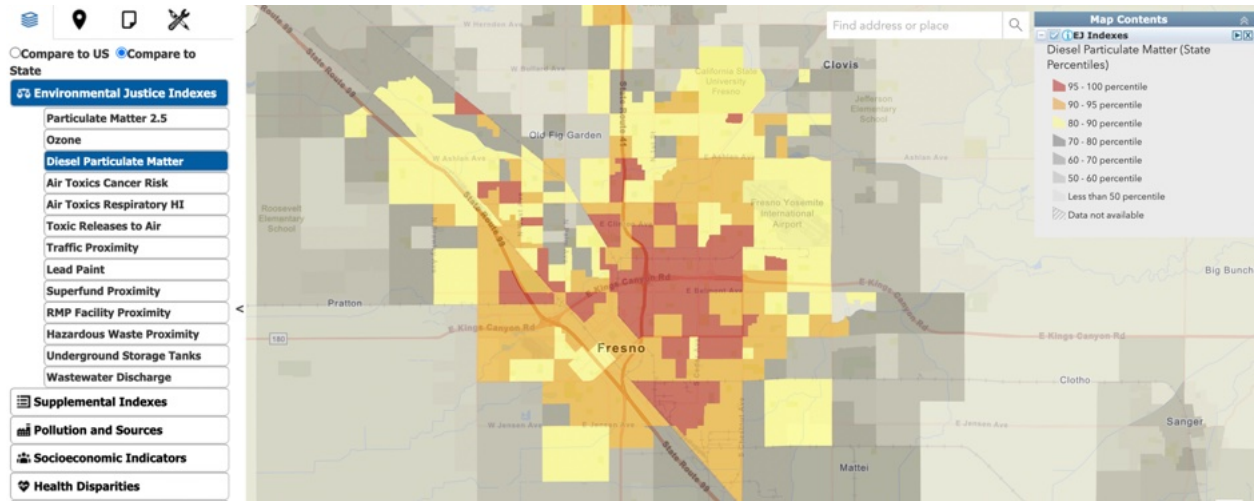


Figure 15: Map of Fresno: Socioeconomic Factors – Low Income

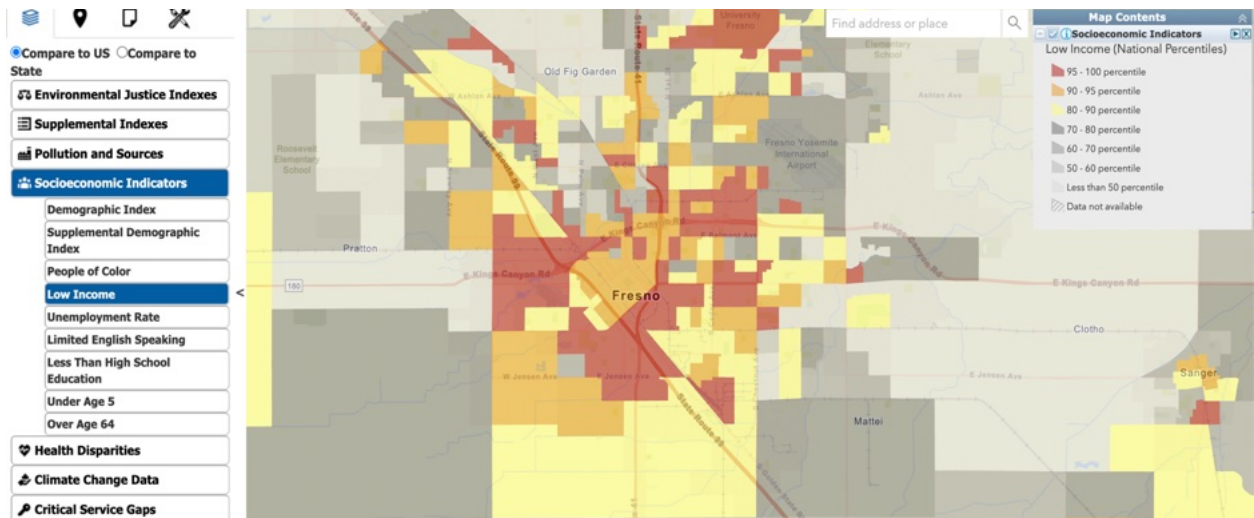
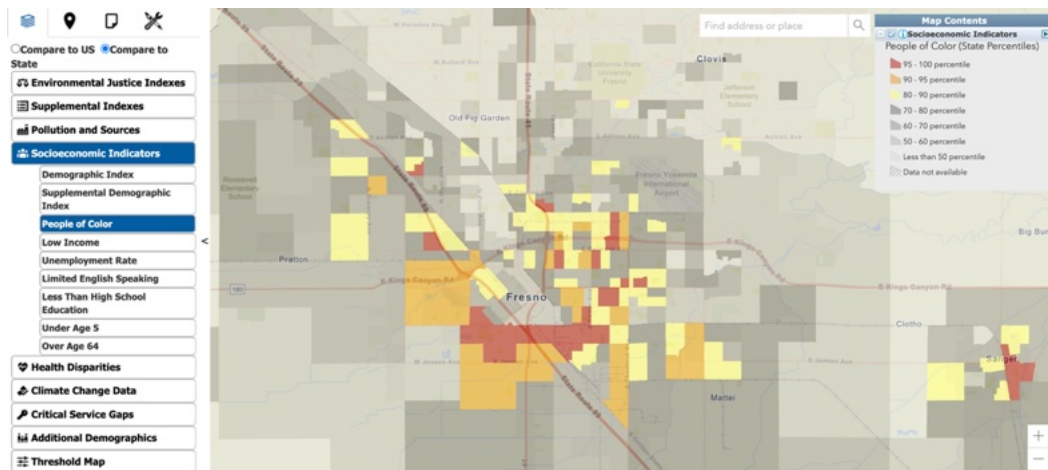


Figure 16: Map of Fresno: Socioeconomic Factors – People of Color



This Project would further this legacy of environmental racism. “Increased truck volumes as a result of the project will exacerbate the pollution and health burdens in Calwa, Malaga, and other South Fresno communities, grossly impacting environmental justice populations.”³⁶⁴ A decision to approve and fund the Project – particularly based on the incomplete and unlawful consultation and conformity analyses that Caltrans has prepared – would be directly contrary to USDOT’s commitment to repairing this history and improving equity in decision-making on transportation infrastructure going forward.

FHWA’s decision to request voluntary remand is a vital opportunity to correct these shortcomings. At minimum, FHWA must vacate the October 2022 conformity determination and faulty analyses on which it relies and halt any action in furtherance of this Project unless and until transportation conformity is assured. But FHWA and USDOT have committed to going beyond the legal minimum. If they are going to make good on these promises, they should work with Caltrans to set aside the Project for good and collaborate with the community to plan and develop an equitable alternative that would repair the unsafe and degraded transportation infrastructure in South Fresno while bringing real benefits to South Fresno residents. An equitable alternative to this Project would reconnect communities severed by State Route 99, route trucks away from South Fresno communities, reduce heavy-duty truck traffic and congestion in South Fresno, bring actual walkability, bikeability, and public transit infrastructure to the area, reduce rather than compound existing air quality concerns, and promote a vision of healthy and community-oriented growth for a thriving residential South Fresno. Residents are ready and willing to make such an equitable alternative a reality; indeed they have been organizing and working for it for decades. FHWA and Caltrans need only join them in this effort rather than working, as this Project does, not undermine it.

³⁶⁴ *Id.* at 4.

CONCLUSION

For the reasons discussed above, Friends of Calwa and Fresno Building Healthy Communities respectfully urge FHWA to vacate its October 2022 conformity determination for the Project and find the Project to be out of conformity with Clean Air Act requirements. Before presenting a new conformity determination for public and interagency review, the undersigned further urge FHWA to work with Caltrans and the South Fresno community to redesign the Project to be consistent with the agencies' commitments to reconnect communities severed by discriminatory highway siting decisions, to secure environmental justice benefits for historically marginalized communities, and to give impacted communities a meaningful voice in shaping transportation projects that affect them.

Respectfully Submitted,

Stephanie Safdi

Stephanie L. Safdi, Supervising Attorney
ENVIRONMENTAL JUSTICE LAW AND
ADVOCACY CLINIC
Jerome N. Frank Legal Services Organization
Yale Law School
Stephanie.safdi@ylsclinics.org

Saseen Najjar, Certified Student Attorney
Carson Smith, Certified Student Attorney
STANFORD ENVIRONMENTAL LAW
CLINIC

Michael Claiborne, Directing Attorney
Perry Elerts, Staff Attorney
Phoebe Seaton, Co-Executive Director
LEADERSHIP COUNSEL FOR JUSTICE
AND ACCOUNTABILITY

*Attorneys for Friends of Calwa, Inc. and
Fresno Building Healthy Communities*

Laura Moreno

Laura Moreno, Executive Director
Friends of Calwa, Inc.

Sandra Celedon-Castro

Sandra Celedon-Castro, Chief Executive
Officer
Fresno Building Healthy Communities

Appendix A

Attainment of National Ambient Air Quality Standards (“NAAQS”) is measured by design values – three-year averages of pollutant concentrations, with different indicia of concentrations for each pollutant.³⁶⁵ The Valley’s design values relative to current NAAQS are displayed in Figure 2.

San Joaquin Valley NAAQS Performance

	8-hour Ozone (O3)	24-hour particulate matter 2.5 µm (PM2.5)	24-hour particulate matter 10 µm (PM10)
Current NAAQS	< 70 parts per billion (ppb)	< 35 micrograms per meter cubed (µg/m3)	< 1 day per year over 150 micrograms per meter cubed (µg/m3)
2020-2022 Design Value	90 ppb	65 µg/m3	16.4 days over 150 µg/m3

Current NAAQS: <https://www.epa.gov/criteria-air-pollutants/naaqs-table#3>

Current design values: <https://www.epa.gov/air-trends/air-quality-design-values#report>

³⁶⁵ U.S. EPA, *Air Quality Design Values*, <https://www.epa.gov/air-trends/air-quality-design-values#definition>; U.S. EPA, *Air Quality Design Values for Criteria Pollutants*, <https://epa.maps.arcgis.com/apps/MapSeries/index.html?appid=bc6f3a961ea14013afb2e0d0e450b0d1> (last visited July 12, 2024).

LIST OF EXHIBITS³⁶⁶

1. First Amended Complaint, Friends of Calwa, Inc. et al. v. Cal. Dept. of Transportation et al. (E.D. Cal. 06, 2023).
2. Caltrans, South Fresno State Route 99 Corridor Project, Draft Environmental Impact Report/Environmental Assessment
3. Caltrans, South Fresno State Route 99 Corridor Project, Final Environmental Impact Report/Environmental Assessment (Jan. 2023)
4. Caltrans, Air Quality Report
5. Caltrans, Community Impact Memorandum
6. May 12, 2023 CARB Letter to Caltrans
7. Mar. 16, 2023 Email from Karina O'Connor to Maya Hidebrand et al.
8. August-December 2021 Email Exchanges between Caltrans re BIC (including attachments)
9. Federal Reserve Bank of San Francisco, The Enduring Challenge of Concentrated Poverty in America: Case Study of Fresno, California.
10. Cal Attorney General's Office Letter to County of Fresno on Draft General Plan (Mar. 29, 2022)
11. Jamey Volker, MB, Amy E. Lee, and Susan Handy. "Induced Vehicle Travel in the Environmental Review Process." Transportation Research Record 2674, no. 7 (2020): 469.
12. Alexander et al., Examining the Externalities of Highway Capacity Expansions in California: An Analysis of Land Use and Land Cover (LULC) Using Remote Sensing Technology, San Jose State University
13. Caltrans, Draft Transportation Analysis Framework: Induced Travel Analysis (March 2020)
14. Caltrans, Changes To National Center For Sustainable Transportation (NCST) Tool For VMT Analysis (November 2021)
15. Calculating and Forecasting Induced Vehicle Miles of Travel Resulting from Highway Projects: Findings and Recommendations from an Expert Panel, Elizabeth Deakin (panel chair) University of California, Berkeley, prepared for Caltrans (September 2020)
16. May 7, 2024 Community Letter to FHWA
17. August 24, 2021 County of Fresno Board of Supervisors Agenda
18. August 24, 2021 County of Fresno Board of Supervisors Meeting Minutes
19. Draft South Central Specific Plan
20. Caltrans Race and Equity Action Plan
21. UC Merced, Fresno Community Health Impact Assessment (April 2024)
22. Local Employment Economy and Environment Data Brief
23. South Central Fresno CERP
24. Gregory Weaver, New questions emerge over Caltrans approval of \$140M highway plan in Fresno County, FresnoLand, (Dec. 4, 2023)
25. Gregory Weaver, Will California expand a highway in America's most polluted city? Yes., FresnoLand, (Mar. 7, 2023)

³⁶⁶ On FHWA instructions for mailed submittal of exhibits, the undersigned sent the majority of the above exhibits were sent to FHWA on a CD by UPS expedited delivery on Friday July 12, 2024. Delivery will be completed by Monday July 15, 2024.

26. May 2023 emails between Caltrans and CARB
27. March 2023 emails between Caltrans and EPA
28. August 24, 2021 County of Fresno Board Agenda Item 4 RE Fresno County Business and Industrial Campus
29. 2023 Email Exchanges between Caltrans and FCOG RE Fresno County RE “FW: Caltrans Capacity Increasing Projects”
30. Video of Federal Highway Administration Meeting, Malaga, June 20, 2024 (provided to FHWA via CD and also available at <https://www.youtube.com/watch?v=ddetO1SyhI>).

ATTACHMENT A

ATTACHMENT A

Comments on the Project Level Conformity Determination for the South Fresno State Route 99 Corridor Project (South Fresno 99 Project or Project) (CTIPS ID 203-00000752), located in Fresno, California, May 2024

by

Amy Lee, Ph.D. and Regan Patterson, Ph.D.¹

July 14, 2024

A. Introduction

The South Fresno State Route 99 Corridor Project aims to expand State Route 99 (“SR 99”) interchange infrastructure at North Avenue and American Avenue in the southern area of the City of Fresno. The project will expand the existing half-interchanges to full interchanges, widen the bridge crossings, and serve a California Department of Transportation (“Caltrans”) route concept to expand the SR 99 mainline. Despite the increased vehicle capacity, Caltrans’ 2022 Air Quality Conformity Analysis concluded that the project is not considered a project of air quality concern (“POAQC”) for PM10 and/or PM2.5, and, therefore, does not require a quantitative PM hot-spot analysis. The Federal Highway Administration (“FHWA”) based its transportation conformity determination for the project on the Air Quality Conformity Analysis and concurred. This report provides a critique of this POAQC determination, with a specific focus on its traffic projections.

The determination hinges upon the claim that no new truck traffic will be induced as a result of the project. Caltrans attempts to justify this by asserting that the project will only serve existing industry. However, we provide evidence that the project will substantially increase traffic, particularly truck traffic, by inducing vehicle travel and enabling new industrial development and associated traffic. Therefore, the project will increase air pollution in South Fresno communities that are already overburdened due to historical and contemporary transportation and land use practices. The Air Quality Conformity Analysis should have considered the new lane capacity on the two interchanges and new industrial facilities in its traffic projections, which would trigger the need to perform a quantitative hot-spot analysis.

B. Transportation Infrastructure in Fresno Historically Promotes Racial Segregation and Isolates South Fresno Communities in Polluted Environments

The project is yet another in a long history of discriminatory transportation practices in Fresno that maintain segregated spaces and concentrate people of color and low-income in neighborhoods with polluting industry. Construction of SR 99 concretized racial borders in the City of Fresno, which had been established through discriminatory race-based planning

¹ Resumes provided in Attachment A.

processes, such as racially restrictive covenants, zoning, and redlining.² Fresno developed around the Central Pacific Railroad station,² which ran from northwest to southeast. Poor and nonwhite residents were forced to live “on the other side of the tracks.”³ White residents and real estate agents agreed not to allow Chinese residents to rent or own property east of the railroad tracks.^{2,3} As the city grew and attracted immigrants of other nationalities, the early agreement extended to other “undesirable” racial and ethnic groups, forcing them to live in Southwest Fresno.³ In 1918, Fresno’s first general plan maintained segregation patterns by designating the southeast as the industrial district and planning affordable housing in the south and southeast, adjacent to industry.³ Redlining then reinforced segregation. The Home Owners Loan Corporation (HOLC) classified neighborhoods that contained deed restrictions or strict zoning standards as A or B, while the Southwest was rated a D due to its “undesirable” population and the Southeast was rated a C due to its proximity to industry and absence of deed restrictions.³ Together, the general plan and redlining served to encode a practice that persists today, whereby communities of color and low-income are relegated to neighborhoods adjacent to industry.

In the 1950s, the City of Fresno used urban renewal funding to help construct SR 99, among other highways.² Urban planners commonly saw the urban highway as a solution to growing traffic congestion in cities, as well as a tool to achieve the urban renewal goal of “slum” clearance.⁴ Planners and engineers decided where highways would be built, with little to no community oversight.⁵ Construction of SR 99 resulted in the demolition of more than 20 blocks of housing and division of neighborhoods in West Fresno. Running parallel to the railroad, SR 99 created another physical barrier and cemented segregation, isolating low-income communities and communities of color in the polluted, industrial southern areas.

C. Air Pollution Analysis Needs to Consider Communities Impacted by the Highway/Interchange and Associated Industrial Activity

Caltrans is failing to consider the communities that will be impacted by the project and associated industrial activity. In its supporting document, the Final Environmental Impact Report/Environmental Assessment (“Final EIR/EA”), Caltrans argues that, “The project would not expose sensitive receptors to substantial pollutant concentrations. The project does not cause substantial emissions, and there are no sensitive receptors in range of the project.”⁶ Additionally, Caltrans asserts that, “No environmental justice populations have been identified within the project area and therefore would not be affected by the proposed improvements.”⁷ However, these statements are simply inaccurate and underlie the need for a full air pollution analysis.

² Fresno Council of Governments. (2023). Appendix 1E: City of Fresno: Fresno Multi-Jurisdictional 2023-2031 Housing Element. Retrieved from <https://www.fresno.gov/planning/general-plan-development-code/>.

³ Zuk, M.Z. (2013). Health equity in a new urbanist environment: Land use planning and community capacity building in Fresno, CA. University of California, Berkeley.

⁴ Mohl, R.A. (2004). Stop the road: Freeway revolts in American cities. *Journal of Urban History*, 30(5), 674-706.

⁵ Mohl, R.A. (2008). The Interstates and the Cities: The U.S. Department of Transportation and the Freeway Revolt, 1966–1973. *Journal of Policy History*, 20(2), 193-226.

⁶ Final EIR/EA. Section 3.2.3.

⁷ Final EIR/EA. Section 3.2.21.

C.1 Sensitive Receptors in Proximity to the Interchanges

According to the California Air Resources Board, “Sensitive receptors are children, elderly, asthmatics and others who are at a heightened risk of negative health outcomes due to exposure to air pollution. The locations where these sensitive receptors congregate are considered sensitive receptor locations.”⁸ Citing California Health and Safety Code § 42705.5(a)(5), the definition continues, “Sensitive Receptor locations may include hospitals, schools, and day care centers, and such other locations as the air district board or California Air Resources Board may determine.”⁸

There are several sensitive receptor locations in Calwa and Malaga near the project. Among these include Calwa Elementary School, Malaga Elementary School, and Malaga Community Park and Recreation Center. Further, the 1,400-bed Fresno County juvenile detention facility is only 300 yards away from the proposed SR 99/American Avenue interchange expansion.⁹ Therefore, sensitive receptors, particularly children, are in proximity to the project. Caltrans should consider air pollution impacts on these groups.

C.2 Environmental Justice Communities Affected by Industrial Freight Activity

As stated in the Air Quality Conformity Analysis, “The project is in Fresno County, in an area zoned for light to heavy industry and business parks. Many large-scale shipping companies have facilities near the North Avenue location and rely on a readily accessible State Route 99 to reach customers. North Avenue and American Avenue are two of the main roads used to reach State Route 99 within the project limits.”¹⁰ Given that the interchanges enable freight truck access and movement from industry in South Fresno to the SR 99 mainline, the “project area” analysis should extend beyond the interchanges and bridge crossings to include the communities of Calwa, Malaga, and other South Fresno communities through which freight trucks traverse.

These are environmental justice communities. Calwa and Malaga are disproportionately Hispanic/Latinx and experience high poverty rates. 90% of people in Calwa and 93% of people in Malaga identify as Hispanic/Latinx.¹¹ Also, both are among the most pollution-burdened in California. CalEnviroScreen 4.0 ranks Calwa in the 98th percentile for PM_{2.5} concentrations and 99th percentile for pollution burden.¹² Similarly, Malaga is in the 96th percentile for PM_{2.5} concentrations and 100th percentile for pollution burden.¹² Exposure to air pollution is associated with an increased health burden, including asthma, respiratory and cardiovascular diseases, and cancer.¹³ Calwa and Malaga are in the 94th and 93rd percentile for asthma emergency department visits and 74th and 71st percentile for heart attack emergency department visits, respectively.¹²

⁸ California Air Resources Board. (n.d.) Sensitive Receptor Assessment. Retrieved from <https://ww2.arb.ca.gov/capp-resource-center/community-assessment/sensitive-receptor-assessment>.

⁹ The County of Fresno. (n.d.). Juvenile Justice Campus. Retrieved from <https://www.fresnocountyca.gov/Departments/Probation/Juvenile-Justice-Campus>.

¹⁰ Air Quality Conformity Analysis. Section 1.1.

¹¹ U.S. Census Bureau. 2020 Decennial Census. Retrieved from <https://data.census.gov>.

¹² Office of Environmental Health Hazard Assessment. (2021). CalEnviroScreen 4.0. Retrieved from <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40>.

¹³ Health Effects Institute. (2010). Traffic-related air pollution: a critical review of the literature on emissions, exposure, and health effects. HEI Special Report 17.

As stated in the Air Quality Conformity Analysis, “Increases in truck traffic at the intersections are to be expected, as the improvements will be specifically designed to accommodate such vehicles.”¹⁴ Increased truck volumes as a result of the project will exacerbate the pollution and health burdens in Calwa, Malaga, and other South Fresno communities, grossly impacting environmental justice populations. A quantitative hot-spot analysis should be conducted for a project area that includes these communities.

D. The Air Quality Conformity Process and Determination for the South Fresno SR 99 Corridor Project is Flawed

The project is located in the San Joaquin Valley Air Basin, which is in extreme nonattainment for Ozone (O₃), serious nonattainment for fine particulate matter (PM_{2.5}), and in maintenance for particulate matter (PM₁₀),¹⁵ all of which are criteria pollutants regulated by the Federal Clean Air Act. Regional- and project-level conformity requirements therefore apply to this project for ozone, fine particulate matter, and particulate matter as described in Section 2.2.3 of the Final EIR/EA and in the federal Clean Air Act. Beyond regional- and project-level conformity analysis, “additional analyses (known as hot-spot analyses) may be required for projects located in carbon monoxide and particulate nonattainment or maintenance areas to examine localized air quality impacts.”¹⁶

The Clean Air Act requires that “projects of air quality concern” (POAQC)s in PM_{2.5} and PM₁₀ nonattainment or maintenance areas carry out a quantitative hot-spot analysis¹⁷ and defines five types “projects of air quality concern” that must demonstrate that they will not worsen air quality.¹⁸ One of these types of projects is “new highway projects that have a significant number of diesel vehicles.” Another type of project is “expanded highway projects that have a significant increase in the number of diesel vehicles.” Other projects are offered as examples of POAQC)s in the Federal Register:¹⁹

Some examples of projects of air quality concern that would be covered by §93.123(b)(1)(i) and (ii) are:

- *A project on a new highway or expressway that serves a significant volume of diesel truck traffic, such as facilities with greater than 125,000 annual average daily traffic (AADT) and 8% or more⁸ of such AADT is diesel truck traffic;*
- *New exit ramps and other highway facility improvements to connect a highway or expressway to a major freight, bus, or intermodal terminal;*
- *Expansion of an existing highway or other facility that affects a congested intersection (operated at Level-of- Service D, E, or F) that has a significant increase in the number of diesel trucks; and*

¹⁴ Air Quality Conformity Analysis. Appendix C. Section 1.3.

¹⁵ Air Quality Conformity Analysis. Section 1.2.

¹⁶ Final EIR/EA. Section 2.2.3.

¹⁷ 40 CFR § 93.116 - Criteria and procedures: Localized CO, PM₁₀, and PM_{2.5} violations (hot-spots).

¹⁸ 40 CFR § 93.123(b)(1) - Procedures for determining localized CO, PM₁₀, and PM_{2.5} concentrations (hot-spot analysis).

¹⁹ Federal Register, Vol. 71, No. 47. Friday, March 10, 2006. Rules and Regulations. Available here: <https://www.gpo.gov/fdsys/pkg/FR-2006-03-10/pdf/06-2178.pdf>.

- *Similar highway projects that involve a significant increase in the number of diesel transit busses and diesel trucks. EPA notes that the above examples are considered to be the most likely projects that would require a PM2.5 or PM10 hot-spot analysis under today's final rule.*

⁸ *This percentage is the national average of truck vehicle miles traveled (VMT) to total VMT, based on FHWA's Highway Statistics publication which can be found at: <http://www.fhwa.dot.gov/policy/ohim/hs04/index.htm>. EPA's MOBILE6.2 motor vehicle emissions model also uses 8% truck VMT as a national default.*

That is, the Federal Register states that a project of air quality concern would include a project on a highway that serves a significant volume of diesel truck traffic and offers a rule of thumb about what lead agencies could consider a "significant" volume of diesel truck traffic. The guidance – these are not thresholds nor "bright line" criteria by EPA's standards – states that a lead agency could consider truck volumes that are above the national average truck volumes (8%) to be a "significant volume" of trucks. The Federal Register also suggests that a project of air quality concern could be "new exit ramps and other highway facility improvements to connect a highway or expressway to a major freight ... terminal." It notes that other projects of air quality concern would be "similar highway projects that involve a significant increase in the number of ... diesel trucks." The project at hand is a project on a highway that serves a significant volume of diesel truck traffic. It adds The project at hand also adds new exit ramps

During the air quality conformity process, this project was curiously "not considered to be a project of air quality concern for PM10 and/or PM 2.5 (POAQC)." The Air Quality Conformity Analysis states that this was "because it does not meet the definition of a POAQC as defined in U.S. EPA's Transportation Conformity Guidance." The Air Quality Conformity Analysis states several reasons for the project not being deemed a POAQC, the first being that "the proposed project is not a new or expanded highway project and is not considered to significantly affect diesel truck traffic on SR 99" (p. 23). It continues by saying that "proposed project is an interchange reconfiguration project that does not increase the capacity of SR 99 or the interchanges."

This statement is false. The proposed project, as described in the Final EIR/EA and the Air Quality Conformity Analysis, will increase the number of lanes and the number of ramps on two SR 99 interchanges. Increasing the number of lanes and ramps of the two interchanges is patently increasing the capacity of the interchanges. The extent of that increase varies by proposed alternative. The existing conditions at the American Avenue interchange include an "east-west two-lane local road"²⁰ (one vehicle lane in each direction), one one-lane on-ramp, and one one-lane off-ramp.²¹ The existing conditions at the North Avenue interchange are similar: an "east-west two-lane local road" (one vehicle lane in each direction), one on-ramp, one off-ramp, and "[t]he ramps are one lane only."²² There are several proposed project alternatives, as described in the Final EIR/EA and the Air Quality Conformity Analysis. All proposed alternatives would reconstruct the highway overcrossings and "[o]vercrossings would include

²⁰ Final EIR/EA. Section 1.2.2.

²¹ Google Maps, 2024 data

²² Final EIR/EA. Section 1.2.2.

four through lanes, two in each direction.”²³ Thus each project alternative would double the number of through-lanes of the SR 99 overcrossings at the two interchanges from two to four lanes. The vehicle capacity of the overcrossings would be increased further by new turn lanes in addition to the new through lanes. The number of new turn lanes varies by build alternative. The vehicle capacity of the on- and off-ramps would also increase in every build alternative, by increasing the number of ramps from two to at least four ramps per interchange and also by increasing the number of lanes on each ramp.²⁴ For example, Build Alternative 2 at North Avenue (the preferred alternative for that interchange) includes six ramps in total – two on-ramps in the northbound direction, two on-ramps in the southbound direction, and one off-ramp in each direction. The proposed off-ramp in the southbound direction, on the west side of SR 99, has five lanes. Of the two on-ramps in the southbound direction, one is three lanes and one is one lane. In the northbound direction, the off-ramp is three lanes and the on-ramps are two and three lanes, respectively. In sum, the preferred alternative for the North Avenue interchange increases the number of lanes on on- and off-ramps from a total of two to 16. Additionally, the preferred alternative at North would increase vehicle capacity on the local roads on either side of SR 99 (South Orange and South Cedar Avenues).

The Air Quality Conformity Analysis makes other arguments about why this project is not one “of air quality concern” that are similarly false, misinterpretations of the Clean Air Act and Federal Register, and self-contradictory.²⁵ It states that “traffic volumes would increase along SR 99 and the rebuilt interchanges” but that the increase in traffic volumes “would ultimately be due to expected future population growth in the Fresno County area, not an influx of traffic due to a newly built industrial, commercial, or trucking facility.” However, there is a new “industrial, commercial, or trucking facility” planned adjacent to the interchanges that relies on expanded interchanges for access by heavy-duty diesel trucks. Indeed, the Air Quality Conformity analysis states in the next paragraph that “[i]ncreases in truck traffic at the intersections are to be expected, as the improvements will be specifically designed to accommodate such vehicles.”²⁶ As explained in detail in Section E, expanding interchanges is expected to induce new vehicle travel and new freight truck travel as they will increase roadway capacity, decrease travel costs and impedance, and increase access to adjacent land. These are driving factors for induced vehicle and freight travel.

The Air Quality Conformity Analysis also states that the truck travel volumes will not reach “the 125,000 AADT criterion” to be considered a Project of Air Quality Concern, citing the AADT value suggested in the 2006 Federal Register printed above. The Analysis states that the “traffic volumes would not approach or exceed” 125,000 AADT, nor would truck volumes meet a magnitude of 10,000 AADT. (The lead agency calculated the value of 10,000 truck AADT from 8% of 125,000.) This is a unique interpretation of the federal Rules and Regulations, which – as stated above – says that POAQC’s would be “projects on a highway or expressway that serves a significant volume of diesel truck traffic, such as facilities with greater than 125,000 annual average daily traffic and 8% or more of such AADT is diesel truck traffic.” This project is on SR 99, which was estimated to serve 199,050 vehicles and 31,848 trucks in 2026 (opening year). At

²³ Final EIR/EA. Section 1.4.

²⁴ Final EIR/EA. Section 1.4.1.

²⁵ Air Quality Conformity Analysis. Section 1.3.

²⁶ Ibid.

31,828, truck AADT represents 16.0% of total AADT – twice as high as the national average that EPA offered as a guideline for determining a “significant volume” of diesel truck traffic.

We can look at the full slate of traffic data presented in the Air Quality Conformity Analysis to see how this project compares to the guidelines in the Federal Register. Table B, Table C, and Table D are combined and replicated in the table below. AADT and truck AADT on the highway mainline and project interchanges are summarized by project alternative and by modeled year. The highway facility exceeds 125,000 AADT in each of the forecasted years, and each alternative in each modeled year (2026 and 2046) are estimated to carry traffic volumes where diesel trucks make up between 9.0% and 33.0% of daily traffic volumes. The percent of trucks on the interchanges exceeds the national average of 8% in every alternative and model year.

Traffic Data by Alternative and Modeled Year	2026 AADT	2026 Truck AADT	2026 % Trucks	2046 AADT	2046 Truck AADT	2046 % Trucks
Mainline SR 99 - no build	199,050	31,848	16.0%	297,300	47,568	16.0%
North Ave - No Build	30,000	9,996	33.3%	39,400	13,250	33.6%
North Ave - Alt 2	29,000	9,372	32.3%	37,600	12,311	32.7%
North Ave - Alt 4	29,000	9,516	32.8%	37,500	12,372	33.0%
American Ave - No Build	5,700	513	9.0%	7,800	702	9.0%
American Ave - Alt 1	8,100	993	12.3%	10,800	1,302	12.1%
American Ave - Alt 2	8,110	986	12.2%	10,800	1,283	11.9%

Source: South Fresno State Route 99 Corridor Air Quality Conformity Analysis, p. 25

Caltrans, in a July 2020 memo regarding “Consultation on PM10 and PM2.5 Hot-spot Conformity Assessment,” provided a different forecast for mainline vehicle volumes on SR 99 in the project area. Caltrans estimated that the SR 99 mainline carried an AADT of 245,300 in 2019 (existing year), and forecasted AADT of 275,300 in 2026 (opening year) and 408,200 in 2046 (design year). Caltrans estimated truck AADT to be 16% of all traffic volumes in all three of those modeled years. The lead agency interestingly did not use these AADT forecasts from Caltrans, despite citing “Caltrans Travel Forecasting” as the source for AADT data in the Final EIR/EA (Table 2-6).²⁷

Finally, the travel analysis summarized in the Final EIR/EA and Air Quality Conformity Analysis does not specify the travel demand model used to forecast future travel demand, nor does it specify if that model has capability to capture induced travel effects. In fact, the models

²⁷ Final EIR/EA. Section 2.1.4.

mentioned in the Air Quality Conformity Analysis (Synchro, SIDRA) do not forecast travel demand at all but rather simulate traffic operations. This air quality analysis rests on an accurate forecast of vehicle volumes, truck volumes, and congestion. Without a model that captures short- and long-term induced travel effects, discussed in detail in Section E, the estimates mentioned above are well-understood to be underestimates of vehicle and truck volumes, underestimates of VMT, overestimate any long-run congestion relief benefits of the project, and thus underestimate air quality impacts (see Volker et al. 2020). Travel demand models require several components to accurately estimate travel demand – e.g., feedback loops to capture the effect of travel costs and times on trip generation, choice of destinations, departure times, residential and business location choices, and land use patterns.^{28,29,30} Accurate estimates of vehicle volumes, truck volumes, VMT, and congestion are necessary to accurately estimate the air quality impacts of the proposed project.

In sum, this proposed project meets many of the criteria that would indicate that it is a project of air quality concern that would require a quantitative hot-spot analysis to comply with the Clean Air Act.

E. Highway Projects Induce Vehicle Travel

This project proposes to “reconstruct” two existing half interchanges on SR 99 at North Avenue and American Avenue in. The “reconstruction” includes expansion of the interchanges, as the project proposes “expanding them to full interchanges and bringing them into compliance with current Caltrans design standards.”³¹ The project would double the number of through vehicle lanes on the overcrossing bridges from two to four (two in each direction) and double the number of ramps on and off the highway, from two ramps at each interchange to four ramps at each interchange. It would also increase the number of lanes on the existing ramps that will be reconstructed.³²

The Final EIR/EA and Air Quality Conformity Analysis define several “purposes,” “needs,” and anticipated outcomes for this project. The stated “purpose” of reconstructing and expanding the interchanges is “improving the traffic operations at those locations [American Avenue and North Avenue].”³³ The “need” for the expanding these two interchanges is several-fold: (1) “half Interchanges do not meet current Caltrans design standards,” (2) “[o]nly two traffic lanes cross the existing structures over the highway, one lane for each direction of travel.” (3) “existing half

²⁸ Deakin. (2020). Calculating and Forecasting Induced Vehicle Miles of Travel Resulting from Highway Projects: Findings and Recommendations from an Expert Panel. Caltrans. Available at: <https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-09-21-sb-743-expert-panel-rpt-fnl-a11y.pdf>.

²⁹ Milam et al. (2017). Closing the induced vehicle travel gap between research and practice. *Transportation Research Record: Journal of the Transportation Research Board*, No. 2653, p.10-16. Available at: https://journals.sagepub.com/doi/pdf/10.3141/2653-02?casa_token=JepPi3bnXxAAAAA:inEPacXzYgFNiZa67pWL4n_SrFyuoKOP0uB1tvEJgPYadpxFtovF3xMcgTNrm6orWM_mKfwWFwWedg

³⁰ Marshall. (2018). Forecasting the impossible: The status quo of estimating traffic flows with static traffic assignment and the future of dynamic traffic assignment. *Research in Transportation Business and Management*. 29, p. 85-92. Available at: <https://www.sciencedirect.com/science/article/pii/S2210539517301232>

³¹ Final EIR/EA. Section 1.1.

³² Ibid.

³³ Final EIR/EA. Section 1.2.

interchanges are not full interchanges with all options for getting on and off the highway,” (4) “[t]he on- and off- ramps also have restrictive dimensions, making it difficult for traffic, especially large trucks, to navigate them,” and (5) traffic is expected to increase in the project area due to the implementation of planned development on both sides of the highway. Caltrans traffic studies show the operation and performance of the interchanges need updating now because traffic conditions will continue to worsen if no improvements are made.” The Air Quality chapter of the Final EIR/EA (Section 2.2.3) states that the project would “allow the streamlined movement of goods along this segment of the State Route 99 corridor,” that with the full interchanges “vehicles would have better access to local destinations,” that “traffic would move more efficiently on and off State Route 99, which would improve mainline operations as well as local road operations,” and that the project would “improve stop-and-go traffic” and “give drivers more direct access routes to their destinations.” In short, this project aims to reduce congestion on the highway and on local roads and increase access to its surrounding areas, particularly for freight trucks that cannot navigate the existing ramps because of their long wheelbase and large size.

Expanding highway capacity is often proposed as a strategy to reduce traffic congestion, improve traffic operations, increase access to land and for certain vehicles, and even to improve air quality and reduce greenhouse gas (GHG) emissions (Volker et al. 2020). Analysts’ logic is that increasing highway capacity increases vehicle speeds, thereby reducing traffic congestion and allowing vehicles to operate at speeds with greater fuel efficiency and lower per-mile emissions rates of GHGs and toxic air pollutants. But this logic, and therefore the environmental analyses for projects that expand highway infrastructure, is fundamentally and perpetually flawed (Volker et al. 2020).

This logic is flawed because it fails to account for the fact that demand for vehicle travel is “elastic” – that is, demand for vehicle travel responds to changes in the perceived cost of travel, which is generally measured in travel time but also in other measures of travel impedance (DeCorla-Souza and Cohen 1999). Expanding highway infrastructure generally decreases vehicle travel times in the short run, which initially reduces users’ cost of driving on the highway. Reduced travel costs result in more vehicle travel, measured in vehicle miles traveled (VMT). This is called the induced travel effect: increasing highway capacity – either constructing a new facility or expanding an existing highway – increases vehicle travel speeds and reduces travel times, thus reducing the effective cost of highway driving. Like any sale on an ordinary good, the reduction in cost spurs – or induces – more consumption of that good. In this case, it spurs more vehicle travel on the highway and the additional VMT are called induced VMT. In the medium- and long-run, induced VMT increases vehicle volumes on roads and highways and the increased supply of highway capacity “is unlikely to relieve congestion.”³⁴

E.1 Theoretical Background of Induced Travel

Induced travel is a well-established and well-documented concept in transportation economics and theoretical and empirical research (e.g., Downs 1962, Downs 1992, Downs 2005). It has

³⁴ Duranton, G., & Turner, M.A. (2011). The fundamental law of road congestion: Evidence from US cities. *American Economic Review*, 101(6), 2616-2652. Available at: <https://pubs.aeaweb.org/doi/pdfplus/10.1257/aer.101.6.2616>.

been anecdotally observed since the adoption of the automobile (e.g., Ladd 2012) and theorized at least since Anthony Downs' watershed paper in 1962. Induced travel has been measured in empirical research for decades (see Cervero 2002) and with an increasingly level of sophistication (e.g., Noland & Cowart 2000, Cervero & Hansen 2002, Duranton & Turner 2011, Melo et al. 2012, Graham et al. 2014, Hsu and Zhang 2014, Hymel 2019, and others). This body of research shows that projects that reduce user-perceived travel costs – measured in travel time, money, travel time reliability, treacherousness, inconvenience, risk, or other measures of travel impedance – lead to changes in passenger and freight travel behavior that generally increase the overall magnitude of travel.

Induced travel is explained by bedrock economic principles of supply and demand. Increasing the supply of the highway network, as illustrated in Figure 1a, reduces the cost of vehicle travel and the total volume of driving consumed increases. This is seen in the graph on the left, where the supply curve shifts to the right and VMT consumed increases from V to V' . The increase in VMT comes from people taking more frequent vehicle trips, choosing farther destinations or longer routes, or shifting from other travel modes to driving. In the long run, expanded highway capacity leads to households and businesses moving further away from jobs and services and can spur land development in more distant locations or more dispersed development patterns. These long-run changes “harden” the demand for driving and further induce VMT, illustrated in Figure 1b with the shift of the demand curve and the commensurate shift in VMT consumption from V' to V'' . The empirical research finds that the full slate of long-run effects of highway expansion on VMT realize within five to 10 years (Hansen & Huang 1997, Duranton & Turner 2011).

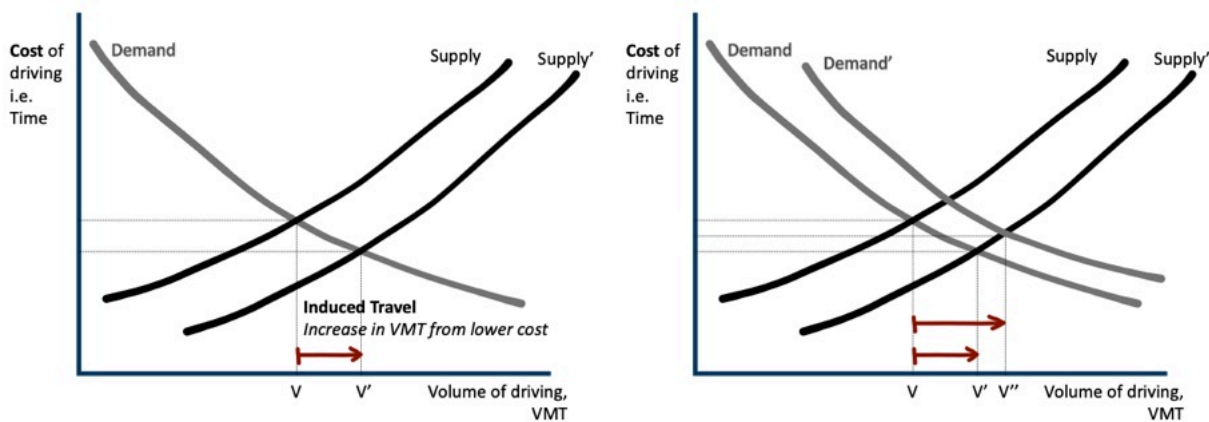


Figure 1. Supply and Demand for Vehicle Travel: (a) Short-Term Induced Travel and (b) Long-Term Induced Travel. Source: Lee 2023

The magnitude of the induced travel effect is often measured and discussed as an elasticity, where a percent change in one factor brings about a percent change in another factor. In the case of induced travel, this is often measured as the elasticity of VMT with respect to lane miles – the percent change in VMT for each percent change in lane miles. A 2014 review of the induced travel research found that “the best estimate for the long-run effect of highway capacity on VMT is an elasticity close to 1.0.”³⁵ That is, expanding highway lane miles by 10% was measured to

³⁵ Handy and Boarnet. 2014. Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions. Policy Brief. Available at:

increase VMT by 10% in the long run. This implies that “adding new capacity to the existing system of limited-access highways is unlikely to reduce congestion or associated GHGs in the long-run”.³⁶ Subsequent research has shown that an elasticity of approximately 1.0 holds across a variety of project contexts and types of new roadway, such as tolled lanes (e.g., Volker & Handy 2022, Anderson et al. 2021)³⁷.

E.2 Causal Factors of Induced Travel

The literature on travel behavior, land use, displacement, air quality, and environmental justice reveal a complex set of relationships with highway projects, and they demonstrate that the expansion of highway facilities has broad effects. Central to induced travel is the variable of the “user-perceived price” of travel (DeCorla-Souza and Cohen 1999). Travel time is the most commonly estimated “price” of travel, but Deakin (2020) specifies that user travel costs can include “travel time, uncertainty, risks, or expenditures.” Cervero (2003) specifies that “economic theory holds that road improvements spur behavioral changes in travel by reducing ‘generalized costs,’ expressed mainly in terms of travel times.” Weis and Axhuasen (2009) define “generalised costs” with the measure of accessibility, as defined by Ben-Akiva and Lerman (1985) and Tschopp et al. (2005) – “increasing accessibility serves as a proxy for decreasing generalised cost of travel.” Handy and Boarnet (2014) state that “the primary mechanism underlying [the induced travel] effect is an increase in travel speed, allowing more trips and longer distance trips in a given amount of time.” In sum, the causal factor of induced travel is the reduction in impedance that road and highway projects provide.

Several studies have created causal pathway diagrams to illustrate the induced travel effect. Handy (2005) defined a broad causal model for the relationship between transportation investments, land development, and induced travel by drawing on economic theory and theories of accessibility. The accessibility of a location, relative to others, will dictate the amount of development that location will attract (Hansen 1959), and “transportation facilities play an important role in this model by determining the relative accessibility of different locations and thus the relative transportation costs associated with locating there” (Handy 2005). The complex and inextricable links between transportation investments, land development patterns, and travel patterns are illustrated in the diagram reproduced below.

https://ww2.arb.ca.gov/sites/default/files/2020-06/Impact_of_Highway_Capacity_and_Induced_Travel_on_Passenger_Vehicle_Use_and_Greenhouse_Gas_Emissions_Policy_Brief.pdf

³⁶ Ibid.

³⁷ See: Volker and Handy’s 2022 “Updating the Induced Travel Calculator” at <https://escholarship.org/uc/item/1hh9b9mf> and Anderson et al.’s 2021 “Estimating Induced Travel from Capacity Expansions on Congested Corridors” at <https://ww2.arb.ca.gov/sites/default/files/2021-04/18RD022.pdf>

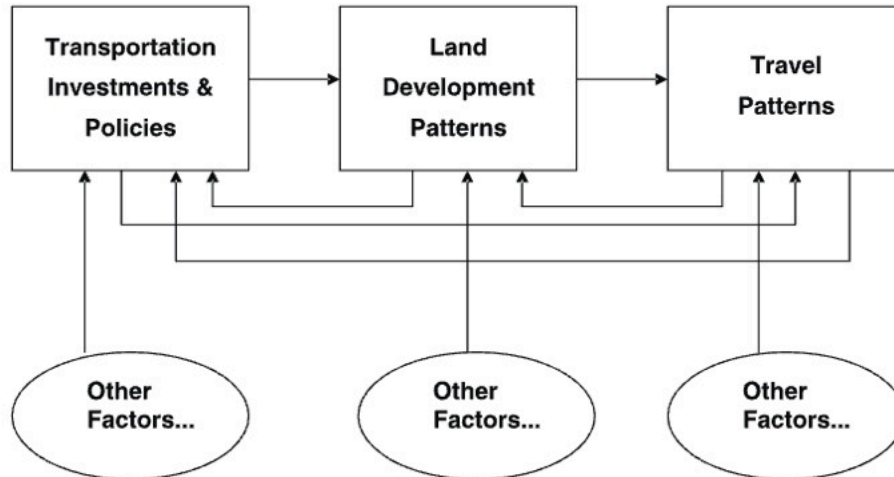


Figure 2: “Complex Links Between Land Use and Transportation.” Source: Handy 2005

Cervero defined “the anatomy of induced travel” and proposed near-term and longer-term path models.³⁸ In the near term, Cervero shows roadway improvements increasing vehicle speeds, which in turn increase vehicle travel. These short-run increases in travel are behavioral shifts from highway projects: new trips are generated, travelers switch modes to now drive, travelers take longer trips to further-away destinations, et cetera. In the long term, roadway improvements increase not only vehicle speeds but also land development activity, both of which increase vehicle travel demand. Cervero calls these structural changes to travel demand, where “people and firms locate to exploit the accessibility benefits when freeways are upgraded.” Cervero’s (2003) path models tracing the near- and long-term effects of road improvements on travel demand and urban development are duplicated below. Solid lines in the model represent “near-instantaneous impacts” of road improvements. Dashed lines represent long-term adjustments: “delayed responses to ‘stimuli’ like road improvements reflect institutional lags—such as the need for local planning agencies to re-zone land to accommodate new growth or time spent by real-estate developers securing building permits and bank loans.”

³⁸ Cervero, R., 2003. Road expansion, urban growth, and induced travel: A path analysis. *Journal of the American Planning Association*, 69(2), pp.145-163. Available at: <https://www.tandfonline.com/doi/pdf/10.1080/01944360308976303>

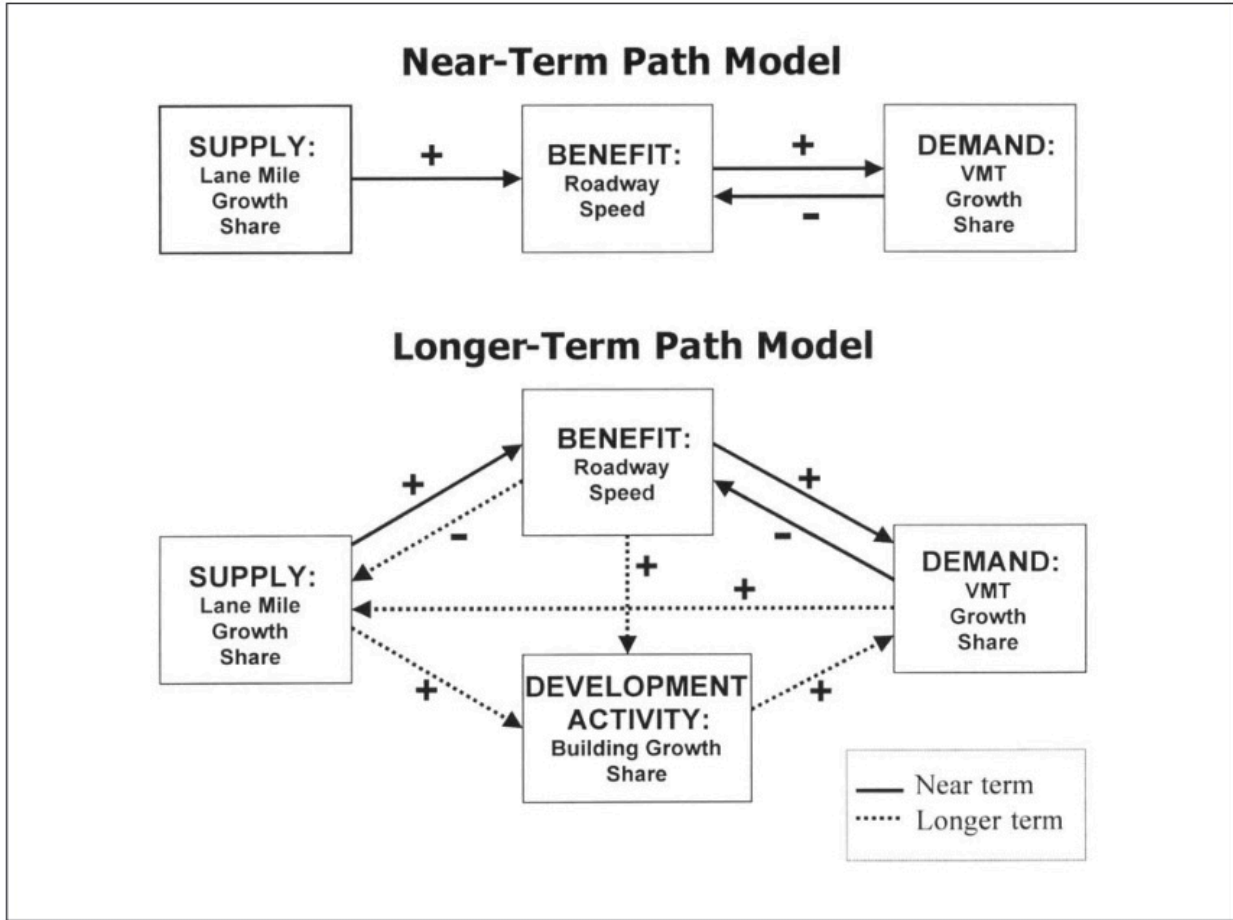


Figure 3: “Hypothesized Path Model.” Source: Cervero 2003

E.3 Sources of Induced Vehicle Travel

Where does induced vehicle travel come from? Studies measure many sources of increased VMT over the short and long term, on the facility itself (i.e., SR 99 and its interchanges), and in the surrounding areas.

Short-term increases in VMT come from changes in travel behavior – what Cervero (2003) called behavioral shifts and Durant and Turner (2011) call individual driving behavior. Many studies and reports summarize these behavioral shifts (e.g., Deakin 2020, Durant and Turner 2011, Cervero 2003, Noland and Lem 2002) which include:

1. Individuals and firms make more vehicle trips than they would have because the increased capacity decreases travel costs. Travel modelers call this increased “trip generation.”
2. Individuals and firms choose destinations that are further away, resulting in longer vehicle trips because the reduction in travel costs makes these destinations more accessible and therefore more attractive than they previously were.
3. Individuals and firms change modes of travel because the project reduces vehicle travel costs and therefore makes vehicle travel relatively more attractive than

other modes, such as transit or trains.

4. Individuals and firms change travel routes because the new facility decreases travel costs. This change in routes could increase or decrease the length of the primary trip. Deakin (2020) specifies that the incremental VMT from longer routes are induced by the project, and that vehicle travel that makes use of space on the roadway network opened up by shorter routes is also induced by the project.

Long-term increases in VMT come from changes that take longer to implement than day-to-day travel choices. These changes have “lagged” effects and include: (1) individuals and firms choosing new, further-away household and firm locations and (2) land development along the corridor with newly created vehicle access. The change in travel costs and impedance are central also to induced VMT over the long-run: “In choosing where to live or where to establish a business, decision-makers take the changed travel costs into account. These changes can lead to further changes in other aspects of travel (routes, modes, destinations, number of trips made) as travelers adjust to the choices available at the new locations” (Deakin 2020).

Much of the induced travel research discusses induced travel stemming from additional lanes in congested conditions, and many assume that congested conditions are a requisite for induced travel to be realized. But induced VMT can also occur in uncongested and rural areas and from any infrastructure that changes perceived travel costs. That is, we would expect induced travel wherever a project “increases the average travel speed on the roadway (at least in the short term), improves travel time reliability, makes driving on the roadway perceptibly safer or less stressful, or provides access to previously inaccessible areas, all of which reduce the perceived “cost” of driving and thereby induce more driving” (Volker and Handy 2022). In a report to Caltrans, Deakin (2020, page 3) described and helpfully illustrated how “[e]ven roads that are designed to provide greater access under conditions of little or no congestion or to simply reroute through traffic can facilitate significant changes in local and regional travel patterns, as well as changes in development locations that lead to increased travel.” That figure is reprinted below.

Figure 2. Connectivity and Induced Travel

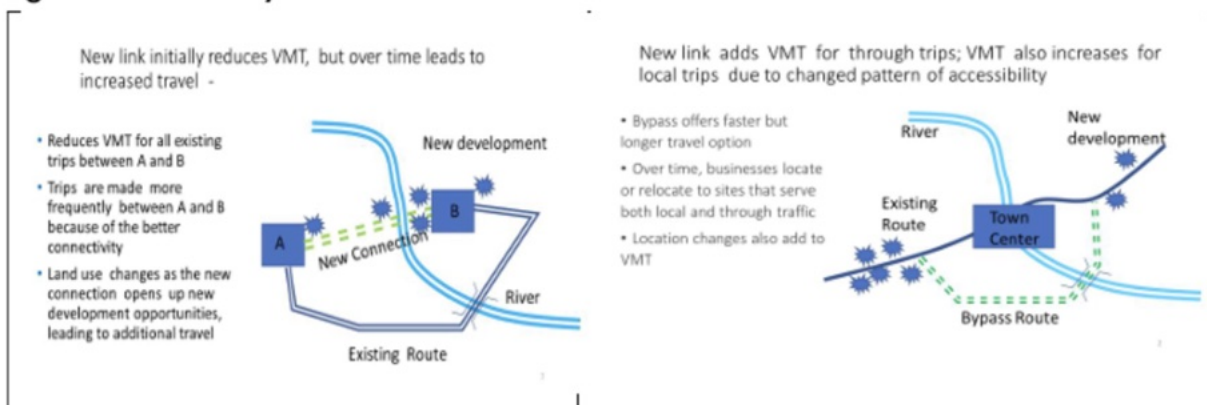


Figure 4: “Connectivity and Induced Travel.” Source: Deakin 2020, from Wang 2020

Induced vehicle travel comes from both passenger and freight sources. Durant and Turner (2011) found that freight travel “is at least as responsive to road supply as other traffic” and that increases in freight and truck VMT comes in part from land use and employment changes. They examined the relationship between road supply and county-level data for “employment in traffic-intensive activities” – a measure of land development change to “motor freight transportation and warehousing” uses. Their findings show that employment in this sector increases with highway capacity, that employment in this sector is more responsive to increases in highway capacity in non-urbanized areas as it is in urbanized areas, and that employment in this sector has become more sensitive to highway capacity over time (1983 to 2003).

Interchanges, like this project, are designed to create or increase access to the local roads they serve. An increase in access reduces the travel costs and impedance to the destinations and land surrounding the interchanges. Interchanges that reduce travel costs and increase land access would thus be expected to be travel inducing in both the short and long terms. This interchange project is designed to increase travel speeds and access by large trucks, which would be expected to shift short-term travel behavior by individuals and firms, and interchanges like this are well-documented to induce growth and land use changes in the areas to which they create access. Induced growth and land use changes induce long-term changes in vehicle travel. And given the high volume of trucks in the SR 99 corridor and South Fresno, and the interchanges being designed specifically to carry large freight trucks, this project would certainly be expected to induce freight vehicle travel.

F. Expected Air Quality Impacts from the South Fresno 99 Project

The air quality impacts of the project add to the critical need for a full air pollution analysis. As described below, the project will substantially increase air pollution and diesel emissions in the already overburdened Calwa, Malaga, and other South Fresno communities. We will examine the cumulative impacts below.

F.1 Induced Travel and Induced Industrial Development Will Worsen Air Quality

As described in the previous section, the project would be expected to induce vehicle travel, particularly truck travel in the short and long term. Consequently, this will increase vehicle emissions, including PM, nitrogen oxides (NOx), and air toxics.³⁹ Freight trucks are major sources of NOx and diesel PM.³⁹ The Air Quality Conformity Analysis did not examine these travel and pollution increases in determining the need for a quantitative hot-spot analysis.

Additionally, the Air Quality Conformity Analysis failed to assess the project inducing new industrial development and associated traffic, stating, “the proposed project will be built to serve the already established commercial and retail industry.”⁴⁰ However, the project provides complete highway access for trucks, which supports and indeed spurs new industrial development. For example, a 3,000-acre, 19-million-square-foot industrial park has been

³⁹ Dallmann, T.R., & Harley, R.A. (2010). Evaluation of mobile source emission trends in the United States. *Journal of Geophysical Research: Atmospheres*, 115(D14).

⁴⁰ Air Quality Conformity Analysis. Appendix C. Section 1.4.

proposed at the fenceline of Malaga.⁴¹ The site is between the project interchanges on SR 99/North Avenue and SR 99/American Avenue.³⁷ The blatant omission of planned and potential industrial development results in underestimated projections of AADT, particularly Truck AADT, upon which the air quality conformity determination relied. The air quality analyses did not adequately account for nor evaluate substantial increases in air pollution that are likely to result from truck traffic generated from such development that would be induced by the expanded interchanges.

F.2 Cumulative Impacts of the Project along with Other Pollution Sources Will Cause Disproportionately High Effects

The air quality analyses failed to account for the cumulative impacts of pollution in Calwa, Malaga, and other South Fresno communities. The cumulative impacts of multiple pollution sources, including industry and freight trucking, harms residents in these communities.⁴² Due to an already high pollution burden and significant number of sensitive receptor locations, which were previously discussed, the communities in South Central Fresno, including Calwa and Malaga, were prioritized by the California Air Resources Board to participate in the Community Air Protection Program, pursuant to Assembly Bill (AB) 617.⁴³ Recent cumulative impacts legislation, such as New York Senate Bill S8830, sets precedent that any net increase in the disproportionate pollution burden on disadvantaged communities is significant.⁴⁴ Thus, the cumulative effects of the project and associated industrial activity on South Fresno communities warrant a full air pollution analysis.

Such an analysis is even more imperative given the other highway expansion projects in the area. As stated in the Final EIR/EA, “Currently, State Route 99 within the project limits (post miles 12.5 to 19.1) is a six-lane, principal arterial...The ultimate route concept is for eight lanes.”⁴⁵ These expanded interchanges would be designed for State Route 99 being expanded to eight lanes. The cumulative increase in air pollution as a result of induced travel from all the highway projects – enabled in part by this project – will cause disproportionately high effects, exacerbating the deleterious pollution and health burdens in Calwa, Malaga, and other South Fresno communities.

G. Conclusion

In conclusion, the Air Quality Conformity Analysis on which FHWA’s transportation conformity determination is based, is contingent upon the inaccurate assertion that the project will not induce significant increases in truck traffic and thus not increase diesel air pollution. We have

⁴¹ Weaver, G. (2023). Will California expand a highway in America’s most polluted city? Yes. FresnoLand. Retrieved from <https://fresnoland.org/2023/03/07/south-fresno-interchange-expansions/>.

⁴² San Joaquin Valley Air Pollution Control District. (2023). Community Emissions Reduction Program South Central Fresno 2023 Annual Report. Retrieved from <https://community.vallevair.org/selected-communities/south-central-fresno/reports-and-document-archive/>.

⁴³ City of Fresno. (2023). South-Central Fresno Truck Reroute Study: Existing Conditions Report. <https://www.fresno.gov/publicworks/south-central-truck-re-route-study/>.

⁴⁴ Senate Bill S8830. 2021-2022 Legislative Session. (NY 2022). <https://www.nysenate.gov/legislation/bills/2021/S8830>.

⁴⁵ Final EIR/EA. Section 1.2.2.

demonstrated that the Air Quality Conformity Analysis woefully underestimates its traffic projections, which has significant air quality implications for Calwa, Malaga, and other South Fresno communities. More accurate estimates that account for induced travel, induced freight travel, and new industrial development would trigger a hot-spot analysis. FHWA must consider the issues raised and require a new air quality analysis from which to make a conformity determination.