

Project Level PM Quantitative Hot-Spot Analysis - Project of Air Quality Concern Questionnaire

Project Setting and Description

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being carried out by ADOT pursuant to 23 U.S.C. 327, and a Memorandum of Understanding dated April 16, 2019, and executed by Federal Highway Administration (FHWA) and ADOT. The City of Casa Grande (Casa Grande), in cooperation with the Arizona Department of Transportation (ADOT), is planning to construct a new traffic interchange (TI) on Interstate 10 (I-10) at approximately milepost (MP) 192.90 (Kortsen Road) in Pinal County, Arizona. The project is located within the West Pinal PM₁₀ Nonattainment Area (Figure 1). Kortsen Road is also known as Kleck Road to the east within the limits of the City of Coolidge (Coolidge). The project area is located between McCartney Road (MP 192) on the north, Cottonwood Lane (MP 194) on the south, Henness Road to the west, and Hacienda Road to the east (Figure 2). Within the project limits, Kortsen Road and Kleck Road are unpaved roads of varying widths that terminate at the ADOT right-of-way (ROW) on each side of I-10. The land adjacent to Kortsen Road and Kleck Road is active agricultural land and undeveloped land, some of which is planned for future development.

The purpose of the project is to improve mobility and connectivity along I-10 in eastern Casa Grande by addressing the capacity issues associated with the increasing demand for access to and from I-10. The increased demand is the result of population growth along with the development of businesses such as Phoenix Mart and other planned development in the Florence Boulevard corridor and in eastern Casa Grande.

On May 23, 2012, the Environmental Protection Agency (EPA) redesignated an area in western Pinal County, Arizona to nonattainment for the 1987 24-hour National Ambient Air Quality Standard (NAAQS) for particulate matter (PM₁₀). The West Pinal Moderate PM-10 Nonattainment Area State Implementation Plan (SIP) prepared by Arizona Department of Environmental Quality (ADEQ) and submitted to EPA in December 2015, has not been approved by the EPA. The EPA did approve portions of the SIP May 31, 2017 that includes Pinal County Air Quality Control District (PCAQCD) rules for fugitive dust and ADEQ rules for agricultural particulate matter controls. The Kortsen Road TI project is included in the 2016-2025 Sun Corridor Metropolitan Planning Organization (SCMPO) Transportation Improvement Plan (TIP) and Regional Transportation Plan (RTP) 2040. A Finding of Conformity for the amended TIP (Amendment #19) and RTP was made by the Federal Highway Administration (FHWA) on February 7, 2019. The conformity determination is in effect until such time as a new determination is required by new regulatory requirements, major revision of transportation plans, or a State Implementation Plan (SIP) revision.

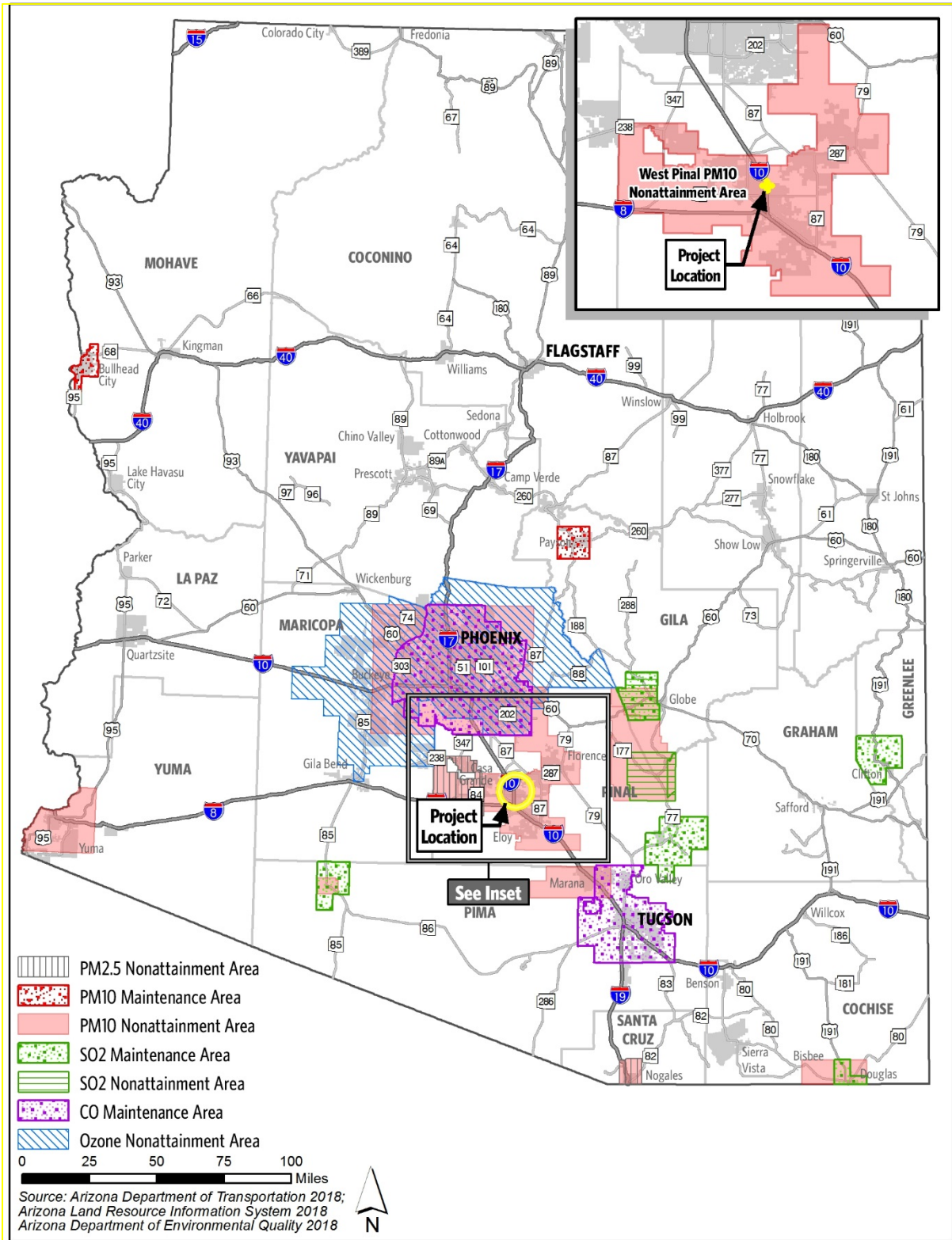


Figure 1. I-10/ Kortsen Road Traffic Intersection Project Location Map

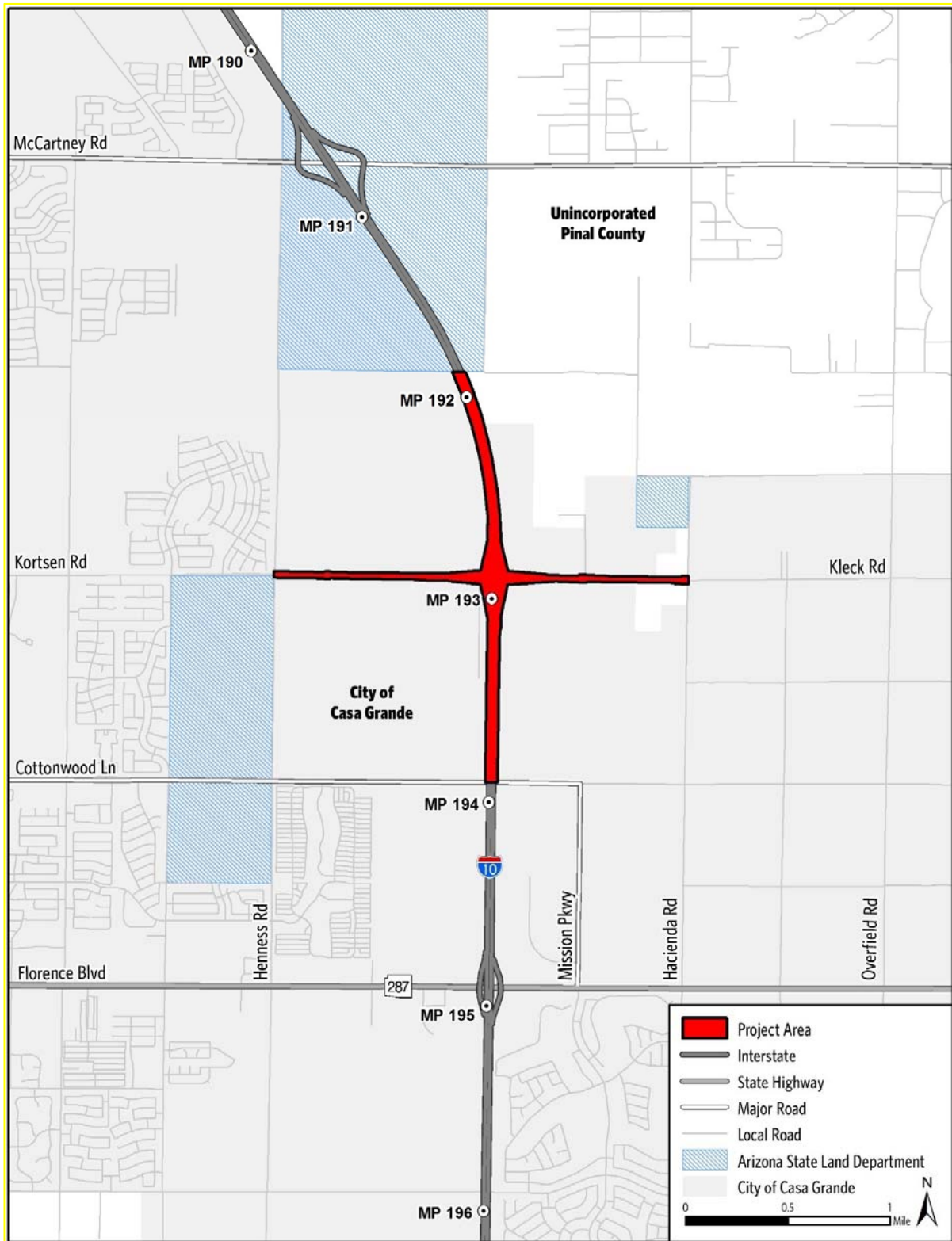


Figure 2. I-10/ Kortsen Road Traffic Intersection Vicinity Map

Project Assessment

The following questionnaire is used to compare the proposed project to a list of project types in 40 CFR 93.123(b) requiring a quantitative analysis of local particulate emissions (Hot-spots) in non-attainment or maintenance areas, which include:

- 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 an increase in traffic volumes from a significant number of diesel vehicles related to the project;
- iii) New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;
- iv) Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; and
- v) Projects in or affecting locations, areas, or categories of sites which are identified in the PM₁₀ or PM_{2.5} applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.

If the project matches one of the listed project types in 40 CFR 123(b)(1) above, it is considered a project of local air quality concern and the hot-spot demonstration must be based on quantitative analysis methods in accordance to 40 CFR 93.116(a) and the consultation requirements of 40 CFR 93.105(c)(1)(i). If the project does not require a PM hot-spot analysis, a qualitative assessment will be developed that demonstrates that the project will not contribute to any new localized violations, increase the frequency or severity of any existing violations, or delay the timely attainment of any NAAQS or any required emission reductions or milestones in any nonattainment or maintenance area.

On March 10, 2006, EPA published *PM_{2.5} and PM₁₀ Hot-Spot Analyses in Project-Level Transportation Conformity Determinations for the New PM_{2.5} and Existing PM₁₀ National Ambient Air Quality Standards; Final Rule* describing the types of projects that would be considered a project of air quality concern and that require a hot-spot analysis (71 FR 12468-12511). Specifically, on page 12491, EPA provides the following clarification: "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 more of such AADT is diesel truck traffic;" "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;" These examples will be used as the baseline for determining if the project is a project of air quality concern.

New Highway Capacity

Is this a New highway project that has a significant number of diesel vehicles?

Example: total traffic volumes $\geq 125,000$ annual average daily traffic (AADT) and truck volumes $\geq 10,000$ diesel trucks per day (8% of total traffic).

NO – The project is a not a new highway project.

Expanded Highway Capacity

Is this an expanded highway projects that have a significant increase in the number of diesel vehicles?*Example: the build scenario of the expanded highway or expressway causes a significant increase in the number of diesel trucks compared with the no-build scenario.*

NO – The project is a not an expanded highway project, it is a traffic interchange project that will not be changing the capacity of I-10, Table 1 shows the change in truck movement due to the addition of an new interchange the overall mainline trucks on I-10. I-10 will remain 3 lanes in each direction within the project limits for years 2025 and 2040.

TABLE 1. I-10 Mainline Volumes 2025 & 2040

I-10 Mainline	2025 No Build AADT	2025 No Build Truck AADT	2025 Build AADT	2025 Build Truck AADT	Change Truck +/-	2040 No Build AADT	2040 No Build Truck AADT	2040 Build AADT	2040 Build Truck AADT	Change Truck +/-
EB West of McCartney Blvd	26368	8232	26580	8247	15	37446	11913	37950	11985	72
WB West of McCartney Blvd	28184	9958	28625	10000	42	41711	16185	42284	16263	78
EB Between McCartney Blvd & Kortsen Rd	24107	7790	25673	7927	137	35303	10738	38213	11630	892
WB Between McCartney Blvd & Kortsen Rd	26705	9595	28098	9756	161	40113	15139	43254	15946	807
EB Between Kortsen Rd & SR287	24107	7790	24832	7591	-199	35303	10738	35707	9775	-963
WB Between Kortsen Rd & SR287	26705	9595	25781	9195	-400	40113	15139	38899	14009	-1130
EB East of SR287	24853	7234	25473	7274	40	36043	9525	36901	9144	-381
WB East of SR287	26130	8934	26455	8938	4	38730	13785	39187	13402	-383

Source: Section 3.1.2 Initial Traffic Report Interstate 10/Kortsen Road Traffic Interchange, Jacobs Engineering Group Inc. July 2019

Projects with Congested Intersections

Is this a project that affects a congested intersection (LOS D or greater) that has a significant number of diesel trucks, OR will change LOS to D or greater because of increase traffic volumes for significant number of diesel trucks related to the project?

NO – The proposed project will provide a new traffic intersection at Kortsen Road and I-10, LOS projections are provided in Table 2. The year 2022 represents opening year, 2025 is an Interim year the full design year is 2042. Two scenarios were evaluated a four-lane or six-lane section between the I-10/Kortsen Road TI ramps. The four-lane section is a cross-section that will accommodate both the initial construction of Kortsen Road, which is one lane in each direction and the interim construction, which is two lane in each direction. The ultimate 6-lane TI configuration will accommodate three lanes in each direction on Kortsen Road. The intersection will not exceed LOS D in the 2025 and 2042 design years.

TABLE 2. Traffic Interchange Intersections Level of Service (LOS)

Intersection	2019 Existing (AM/PM)	2022 No-Build (AM/PM)	2022 Build (AM/PM)	2025 No-Build (AM/PM)	2025 Build (AM/PM)	2042 No-Build (AM/PM)	2042 Build (AM/PM)
I-10 EB Ramp & McCartney Rd	A / A	A / A	A / A	A / A	A / A	C / C	C / C
I-10 WB Ramp & McCartney Rd	A / A	A / A	A / A	A / A	A / A	C / C	B / C
I-10 EB Ramp & Kortsen Rd	*	*	B / B	*	B / B	*	C / C
I-10 WB Ramp & Kortsen Rd	*	*	B / B	*	B / B	*	C / C
I-10 EB Ramp & Florence Blvd	B / C	B / C	B / C	B / C	B / C	C / C	B / C
I-10 WB Ramp & Florence Blvd	B / B	B / C	B / C	B / B	B / C	C / C	C / B

* No Delay/LOS reported as there is no Kortsen TI in existing, 2022, 2025 and 2042 No-Build conditions.

Source: Table 3-7 Initial Traffic Report Interstate 10/Kortsen Road Traffic Interchange, Jacobs Engineering Group Inc. July 2019

New Bus and Rail Terminals

Does the project involve construction of a new bus or intermodal terminal that accommodates a significant number of diesel vehicles?

NO – The project does not involve the construction of a bus or rail terminal.

Expanded Bus and Rail Terminals

Does the project involve an existing bus or intermodal terminal that has a large vehicle fleet where the number of diesel buses (or trains) increases by 50% or more, as measured by arrivals?

NO – The project does not involve the expansion of bus or rail terminals.

Projects Affecting PM Sites of Violation or Possible Violation

Does the project affect locations, areas or categories of sites that are identified in the PM₁₀ or PM_{2.5} applicable plan or implementation plan submissions, as appropriate, as sites of violation or potential violation?

NO – The 2015 West Pinal Moderate PM₁₀ Nonattainment Area SIP does not identify any specific sites or potential sites of violation; therefore, the project is not anticipated to violate sensitive sites.

POAQC Determination

The proposed project is in the 2015 West Pinal Moderate PM₁₀ Nonattainment Area and is included in the 2016-2025 Sun Corridor MPO TIP and RTP 2040. The Kortsen Road Traffic Interchange project will not significantly increase total diesel truck traffic on mainline I-10 or any local intersection. Additionally, the project will not create or worsen LOS D conditions in any future design year. Therefore, this project is being presented for interagency consultation in accordance with 40 CFR 93.105 as a Project that is not of Air Quality Concern and thereby will not require a PM hot-spot analysis.

Interagency Consultation Results

On August 8, 2019 ADOT provided a copy of this questionnaire, to the following consultation parties, EPA, FHWA, SCMPO, ADEQ, PCAQCD, and Maricopa Association of Governments (MAG). There were no objections to the project determination and on August 20, 2019 ADOT concluded Interagency Consultation by notifying interested parties that this project will proceed as a project that does not require a quantitative PM10 hot-spot analysis under 40CFR 93.123(b).

Sources

- 2019 City of Casa Grande, *Initial Traffic Report for the Kortsen Traffic Interchange*, Jacobs Engineering Inc. July 2019.
- 2016 Sun Corridor Metropolitan Planning Organization (SCMPO) Regional Transportation Plan (RTP) 2040 Creating Connectivity, March 15, 2016. https://scmpo.org/wp-content/uploads/2016/01/Sun_Corridor_MPO_RTP-Final-03-15-2016-Certification.pdf. Accessed March 15, 2019.
- 2019 2016-2025 SCMPO Transportation Improvement Plan (TIP) Amendment #19, February 7, 2019. <https://scmpo.org/wp-content/uploads/2019/03/2019-02-07-SCMPO-Conformity-Finding.pdf>. Accessed March 15, 2019.
- 2015 2015 West Pinal Moderate PM10 Nonattainment Area SIP. Arizona Department of Environmental Quality. Air Quality Division. December 21, 2015. https://legacy.azdeq.gov/envIRON/air/plan/sips_submitted_to_epa.html. Accessed March 15, 2019.



Beverly Chenauskay <bchenauskay@azdot.gov>

Interagency Consultation: Determining Project of Air Quality Concern in SCMPO Region; T0164 : I-10, Kortsen Road Traffic Interchange

Beverly Chenauskay <bchenauskay@azdot.gov>

Tue, Aug 20, 2019 at 11:33 AM

Draft To: ihiggs@scmpo.org, "Wamsley, Jerry" <wamsley.jerry@epa.gov>, Michael Sundblom <Michael.Sundblom@pinalcountyz.gov>, Transportationconformity <transportationconformity@azdeq.gov>, "Hansen, Alan (FHWA)" <Alan.Hansen@dot.gov>, Lindy Bauer <lbauer@azmag.gov>, Paul O'Brien <POBrien@azdot.gov>
Cc: Clifton Meek <meek.clifton@epa.gov>, Karina O'Conner <oconnor.karina@epa.gov>, ADOTAirNoise - ADOT <adotairnoise@azdot.gov>, Dean Giles <dgiles@azmag.gov>, "Jennifer (FHWA)" <jennifer.elsken@dot.gov>, Scott DiBiase <scott.dibiase@pinalcountyz.gov>, Darin Kelly <dkelly@azdot.gov>, Eric Prosnier <EProsnier@azdot.gov>, jhaffner@scmpo.org

As there are no objections to the project determination presented, interagency consultation is complete with the project identified as a project that does not require a quantitative hot-spot analysis as listed under 40 CFR 93.123(b). A final FHWA Conformity Determination on this project will be posted on ADOT's Environmental Planning Air Quality website when received.

<https://www.azdot.gov/business/environmental-planning/air-quality/transportation-conformity>

Thank you,
Beverly

On Thu, Aug 8, 2019 at 1:33 PM Beverly Chenauskay <bchenauskay@azdot.gov> wrote:

Due to size limitations and restriction to some users, only the consultation document is included in this follow up email. A link is provided to access the supporting traffic report through google drive and a separate notification, may also follow, please let me know if you still have problems downloading the traffic report and I can set up a ShareFile (ftp) link, thanks.

<https://drive.google.com/file/d/0B8xaNpKWfvdvxb2NJaGZwbUI0bTZPeU0tc3JyWGZ3VmtfTEhV/view?usp=sharing>

On Thu, Aug 8, 2019 at 12:59 PM Beverly Chenauskay <bchenauskay@azdot.gov> wrote:

ADOT is presenting the following project, **I-10, Kortsen Road Traffic Interchange**, for interagency consultation per 40 CFR 93.105 as a potential project that is **not** a project of Air Quality Concern and thereby will not require a PM10 hot-spot analysis. ADOT is requesting responses to the attached PM questionnaire within **10 business days**; a non-response will be interpreted as concurrence that the project is not a project of air quality concern and does not require a hot-spot analysis. If any consulted party believes this project should be treated as a project of air quality concern that requires a Quantitative PM hot-spot analysis, please document the appropriate section under 40 CFR 93.123 (b) that applies to the project and describe why the project should be treated as a project of air quality concern. Additional information is also provided in the attached traffic report.

Beverly T. Chenauskay
Air & Noise Program Manager
MD EM02, Room 41
1611 W. Jackson St.
Phoenix, AZ 85007
602.712.6269
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RE: Interagency Consultation: Determining Project of Air Quality Concern in SCMPO Region; T0164 : I-10, Kortsen Road Traffic Interchange

1 message

Hansen, Alan (FHWA) <Alan.Hansen@dot.gov>

Tue, Aug 20, 2019 at 7:02 AM

To: "bchenauskay azdot.gov" <bchenauskay@azdot.gov>

Cc: "Elsken, Jennifer (FHWA)" <jennifer.elsken@dot.gov>, "Yedlin, Rebecca (FHWA)" <Rebecca.Yedlin@dot.gov>, "Heier, Ammon (FHWA)" <ammon.heier@dot.gov>

Hi Beverly,

We have the information in the POAQC and concur with the ADOT recommendation that it does not require a PM10 hotspot analysis.

Alan R. Hansen

Team Leader – PEARC

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From: bchenauskay [azdot.gov](#)

Sent: Thursday, August 8, 2019 2:15 PM

To: [ihiggs@scmpo.org](#); Wamsley.Jerry <[wamsley.jerry@epa.gov](#)>; Michael Sundblom <[Michael.Sundblom@pinalcountyyaz.gov](#)>; Hansen, Alan (FHWA) <[Alan.Hansen@dot.gov](#)>; LBauer [azmag.gov](#) <[LBauer@azmag.gov](#)>

Cc: Clifton Meek <[meek.clifton@epa.gov](#)>; Karina O'Conner <[oconnor.karina@epa.gov](#)>; Dean Giles <[dgiles@azmag.gov](#)>; Elsken, Jennifer (FHWA) <[jennifer.elsken@dot.gov](#)>; scott.dibiase [pinalcountyyaz.gov](#) <[scott.dibiase@pinalcountyyaz.gov](#)>

Subject: Interagency Consultation: Determining Project of Air Quality Concern in SCMPO Region; T0164 : I-10, Kortsen Road Traffic Interchange

NOTE: Re-sending the email below with pdf attachment for those without google accounts who had trouble accessing the attachment directly in the original email.

On Thu, Aug 8, 2019 at 12:59 PM Beverly Chenauskay <[bchenauskay@azdot.gov](#)> wrote:

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Beverly T. Chenauskay

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