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

Project Setting and Description

The Arizona Department of Transportation (ADOT) is designing a roadway widening project on US 95 from Rifle Range Road to the Wellton-Mohawk Canal approximately 10 miles northeast of the City of Yuma in Yuma County, Arizona (shown below in Figure 1). The proposed project will widen US 95 from 2 lanes to a 5-lane section with 2 lanes in each direction and a continuous center turn-lane. The project limits extend from milepost (MP) 34.9 to MP 38.7. The project will occur on land owned by ADOT, Wellton-Mohawk Irrigation & Drainage District, Bureau of Reclamation, and private land.

The purpose of this project is to accommodate traffic volumes by increasing capacity. The scope of work for this project includes:

- Remove existing pavement and reconstruct the asphaltic concrete roadway to provide two lanes in both the northbound (NB) and southbound (SB) directions, a two-way left turn lane, and shoulders from Rifle Range Road to 0.6 miles north of the Wellton-Mohawk Canal, Install asphaltic concrete friction course on US 95, Remove and reconstruct the existing bridge over the Wellton-Mohawk Canal, Extend and/or realign/reconstruct the existing siphon at the Wellton-Mohawk return drainage, Channel, Reconstruct the maintenance access roads at the Wellton-Mohawk Canal to tie into the reconstructed US 95, Realign the Avenue 12E turnout to create perpendicular intersection and combined access, Obliterate/remove striping and restripe the US 95 and turnouts.
- Other minor work as needed includes; Remove and reconstruct existing turnouts along US 95, Extend and/or remove and reconstruct existing pipe culverts along US 95, Extend existing concrete box culverts along US 95, Install roadside barriers, Construct noise barriers along US 95, Remove existing signage and provide new signage, including embedded advance warning signs, Remove and reconstruct fence, Construct new utilities and relocate utilities, Conduct utility potholing and geotechnical investigations, Install erosion control.

The proposed project lies within the Yuma PM₁₀ Nonattainment Area. The primary sources of PM₁₀ in the nonattainment area include dust from unpaved roads, construction dust, windblown dust, dust from unpaved farm roads, and cross border emissions from Mexico (<https://azdeq.gov/yuma-pm-10-nonattainment-area>, accessed August 24, 2021).

The project is listed in the Yuma Metropolitan Planning Organization (YMPO) FY 2022-2026 Transportation Improvement Program (TIP No. 102079, approved by the YMPO Executive Board, July 29, 2021). The project is also included in the YMPO 2018-2041 Regional Transportation Plan (RTP). On August 30, 2021 FHWA issued a Finding of Conformity on the FY 2022-2045 YMPO Regional Transportation Plan (RTP) and FY 2022-2026 Transportation Improvement Program (TIP).

Figure 1. Project Area

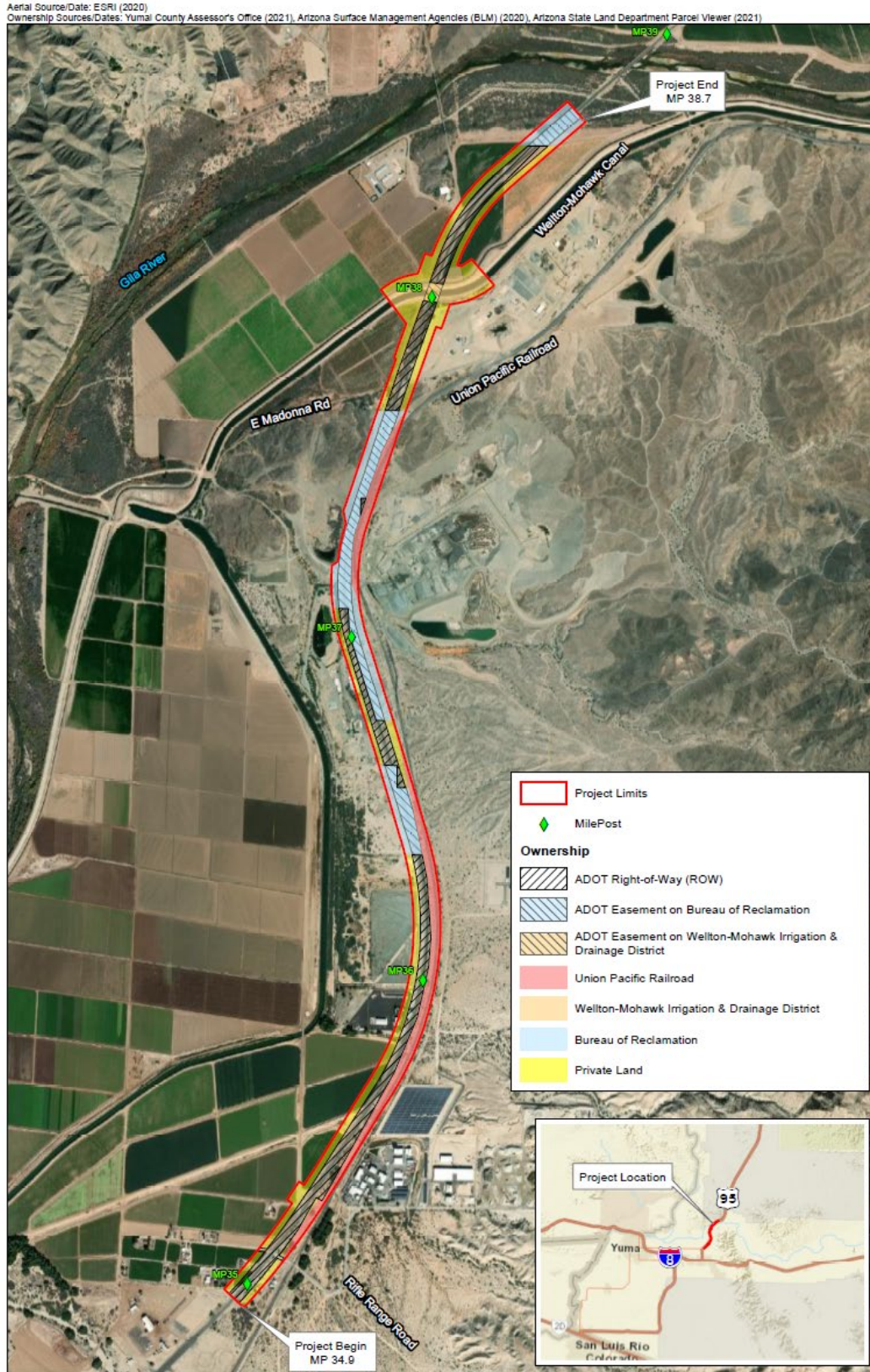


Figure 1 Vicinity Map
 095-B(214)T
 095 YU 035 F0359 01C
 US 95, Rifle Range Road to Wellton-Mohawk Canal

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 nonattainment 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 proposed project is 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, truck volumes > 8% of the total traffic.

NO - Widening US 95 between Rifle Range Road and the Wellton Mohawk Canal would not result in a significant increase in the number of diesel trucks on the alignment between 2020 and 2045.

| AADT and Truck Volumes | Existing (2019) | | No-Build (2045) | | Build (2045) | | Difference (Build - No-Build) | |
|---|-----------------|-------------|-----------------|-------------|--------------|-------------|-------------------------------|-----------|
| | AADT | Truck (%) | AADT | Truck (%) | AADT | Truck (%) | AADT | Truck (%) |
| US 95 Between Rifle Range Road and Wellton Mohawk Canal | 7,696 | 1,077 (14%) | 9,097 | 1,274 (14%) | 9,453 | 1,323 (14%) | 356 | 49 (0%) |

Source: Email from Vamshi Yellisety, Kittelson & Associates to Angie Newton, Newton Environmental Consultants, et. al. August 16, 2021 and August 26, 2021.

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 an increase in traffic volumes from a significant number of diesel trucks related to the project?

NO - The proposed project does not affect congested intersections and there are no intersection improvements associated with the project.

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 proposed project does not involve construction of a new bus or intermodal 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 proposed project does not involve an existing bus or intermodal terminal.

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 proposed project does not affect locations, areas or categories of sites that are identified in the PM₁₀ or PM_{2.5} plan as sites of violation or potential violation.

As noted elsewhere, PM₁₀ emissions in the Yuma County nonattainment area are largely due to dust from unpaved roads, construction dust, windblown dust, dust from unpaved farm roads, and cross border emissions from Mexico.

POAQC Determination

The project is not anticipated to have a significant number of diesel vehicles; the diesel truck increases due to this project is 49 AADT with overall traffic volumes low. Traffic volumes on US 95 between Rifle Range Road and the Wellton Mohawk Canal in 2045 (approximately 9,100 AADT under the 2045 No-Build scenario and 9,450 under the 2045 Build scenario). The project does not impact LOS D or worse intersections with a significant number of diesel vehicles as there are no intersection improvements or signalization projects associated with the proposed project.

Therefore, ADOT is presenting this project 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

ADOT presented this questionnaire to the following consultation parties, EPA, FHWA, YMPO, and the Arizona Department of Environmental Quality (ADEQ) for interagency consultation between September 16 – October 1st, 2021 interagency consultation in accordance with 40 CFR 93.105 as a Project that is NOT of Air Quality Concern and that will not require a PM hot-spot analysis. There were no objections to the project determination and on October 1st, 2021, 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).

Re: Interagency Consultation: F0359 01D | 095-B(214)T US 95, Rifle Range Road to Wellton Mohawk Canal

1 message

Beverly Chenausky <bchenausky@azdot.gov>

Fri, Oct 1, 2021 at 11:24 AM

To: Paul Ward <pward@ympo.org>, "Wamsley.Jerry" <wamsley.jerry@epa.gov>, Transportationconformity <transportationconformity@azdeq.gov>, "Hansen, Alan (FHWA)" <Alan.Hansen@dot.gov>

Cc: Karina O'Conner <oconnor.karina@epa.gov>, Clifton Meek <meek.clifton@epa.gov>, Rebecca Yedlin <rebecca.yedlin@dot.gov>, Charles Gutierrez <cgutierrez@ympo.org>, Trent Kelso <tkelso@azdot.gov>, ADOTAirNoise - ADOT <adotairnoise@azdot.gov>, Morgan Ghods <mghods@azdot.gov>, Paul O'Brien <POBrien@azdot.gov>, Mark Hoffman <mhoffman@azdot.gov>

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).

Thank you,

Beverly

On Thu, Sep 16, 2021 at 4:15 PM Beverly Chenausky <bchenausky@azdot.gov> wrote:

ADOT is presenting the following project, **US 95, Rifle Range Road to Wellton Mohawk Canal**, 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. If through interagency consultation it is determined that this project will not require a hot-spot analysis, other conformity provisions apply and will be addressed in the air quality section of the environmental clearance. 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.

Please let me know if you have any additional questions or need additional time to review. All other project details, upcoming events, and additional information on how to subscribe to project updates can be found on the project website at:

<https://azdot.gov/projects/southwest-district-projects/us-95-corridor-widening-and-reconstruction>

Beverly T. Chenausky
Air & Noise Program Manager
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205 South 17th Avenue
Phoenix, AZ 85007
C: 480.390.3417
azdot.gov



Re: Interagency Consultation: F0359 01D | 095-B(214)T US 95, Rifle Range Road to Wellton Mohawk Canal

1 message

Transportationconformity - AZDEQ <transportationconformity@azdeq.gov>

Tue, Sep 28, 2021 at 2:01 PM

To: Beverly Chenausky <bchenausky@azdot.gov>

Hi Beverly,

I hope all is going well!

ADEQ does not have comments on the **US 95, Rifle Range Road to Wellton Mohawk Canal** Project Level PM Quantitative Hot-Spot Analysis - Project of Air Quality Concern Questionnaire.

Thank you for providing the opportunity to comment.

Amanda Luecker

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