DRAFT 2010 YMPO COMFORMITY ANALYSIS

FOR THE

FY2011-2116 TRANSPORTATION IMPROVEMENT PROGRAM

AND THE

FY 2010-2033 YMPO REGIONAL TRANSPORTATION PLAN

November 2010

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EXECUTIVE SUMMARY

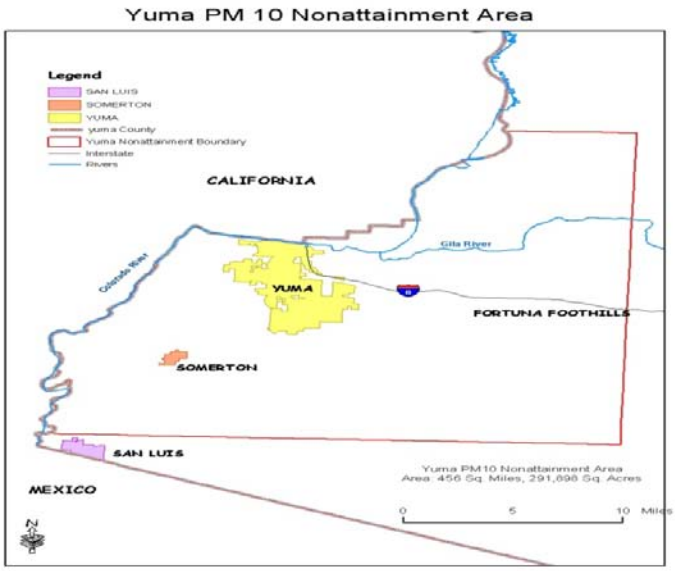
The Yuma Metropolitan Planning Organization (YMPO) Executive Board on Thursday, December 2, 2010 at its regular meeting held a public meeting on the 2010 Air Quality Conformity Analysis Report. Interested individuals were invited to attend and to make comments or ask questions concerning the Analysis Report at that meeting or submit comments in writing prior to the date of the meeting. After taking into consideration public and written comments, the Executive Board approved the 2010 Air Quality Conformity Analysis Report during this regular meeting.

The YMPO has the responsibility to ensure that the transportation plans and programs within the YMPO planning boundaries, generally the greater Yuma area, conform to the state and national air quality plans and standards. Specifically, the emissions generated from proposed projects in the YMPO's five-year Transportation Improvement Program (TIP) for 2011-2016 and the twenty-three year Regional Transportation Plan (RTP) for 2011-2033 must be consistent with and conform to national ambient air quality standards (NAAQS).

The YMPO is required to undertake an air quality conformity analysis for two specific reasons: (1) to ensure that transportation investments (projects), strategies and programs, taken as a whole, have air quality impacts consistent with and conforming to state and national air quality plans and standards; and (2) to ensure that neither the transportation system as a whole nor individual transportation projects cause new air quality violations or worsen existing conditions.

The air quality conformity process establishes the connection between transportation planning and emission reductions from transportation sources and is intended to ensure that integrated transportation and air quality planning occurs in areas designated as *non-attainment or maintenance areas* by the United States Environmental Protection Agency (EPA). A regional emissions analysis must be conducted in order to assess the impacts that transportation projects will have on emissions within an air quality planning area.

Figure 1



A *non-attainment* area is an area that has violated one or more of the National Ambient Air Quality Standards (NAAQS), and a portion of the Greater Yuma Area is currently designated as a non-attainment area (Figure 1), although a request for redesignation to attainment status and related Maintenance Plan were submitted to EPA on August 16, 2006, and are pending approval. After EPA approval, Yuma would be redesignated as a *maintenance area* for PM10. In the Yuma area, the air quality violation was for

PM_{10} particulate matter, a mix of solid and liquid droplets 10 microns or less in diameter. The Yuma area was designated as non-attainment in 1991, but EPA promulgated a Clean Data Finding for 1998-2001 and subsequent years on March 14, 2006 [71 Federal Register 13021; effective May 16, 2006].

In 1992, Transportation Control Measures (TCMs) were established: these TCMs were transportation improvements planned and implemented for the purpose of reducing pollutant emissions and improving air quality. At the same time, local governments adopted, implemented and enforced Reasonable Available Control Measures (RACMs). Some of the RACMs implemented included: (1) paving, stabilizing, and/or reducing travel on unpaved streets, roads, and unpaved areas; (2) watering unpaved streets, alleys, shoulders, and canal and levee roads; (3) sweeping paved streets; (4) reducing travel on canal roads; and (5) constructing improvements such as parking lots and landscaped areas to minimize the amount of undeveloped desert in developed areas that was exposed to the elements.

This 2010 Air Quality Conformity Analysis reports on the results of the TCMs and RACMs from July 2009 thru June 2010 and on an analysis of the estimated emissions from vehicles due to increases in miles traveled during the period of the 2011-2016 TIP. Much of the analysis was done using the EPA's computer program emission model that calculates the total area-wide lead and particulate emissions for various particle sizes from gasoline and diesel fueled on-road vehicles, trucks, and motorcycles.

This conformity analysis also represents a change in the conformity criteria as YMPO began analyzing conformity on the basis of the ADEQ *Yuma PM_{10} Maintenance Plan (August 2006)* annual Motor Vehicle Emissions Budget (MVEB) for the YMPO Region of 10,803 tons per year as compared to the previous Build/No Build criteria utilized in previous analyses.

A summary of the 2010 Air Quality Conformity Analysis Report is as follows.

1. The required Motor Vehicle Emissions Budget (MVEB) for PM_{10} emissions to maintain the PM_{10} NAAQS as approved by EPA is 12,169 tons per year for 2005 and 10,803 tons per year for year 2016.

2. There were no measured exceedances of the PM_{10} standard through 2006 in the Yuma non-attainment area except for a classified "exceptional event" in August 2002, prior to EPA's Clean Data Finding. This "exceptional event" was an exceedance of the 24-hour standard; however, the Arizona Department of Environmental Quality (ADEQ) has classified this exceedance as an Exceptional Natural Event (high wind event). A Natural Event Action Plan (NEAP) that was prepared by ADEQ and submitted to the EPA in August 2005 was subsequently included in the *Yuma PM_{10} Maintenance Plan (August 2006).* A special purpose monitor installed in November 2004 recorded high biased PM10 concentrations during high wind events from February 2006 through October 2007. On November 7, 2007, ADEQ submitted a letter to EPA Region IX requesting exclusion of resulting exceedances during this period from determinations of attainment status and replaced the Beta Attenuation Monitor with a TEOM continuous monitor on that same date. Four exceedances were recorded in 2008 on the TEOM that ADEQ has flagged as exceptional events, and ADEQ has submitted supporting documentation. ADEQ has also flagged exceptional

events that occurred in 2009, for which supporting documentation has not yet been submitted. Otherwise, PM_{10} emissions continue to be less than 1990 values and less than the MVEB included in the Yuma *PM_{10} Maintenance Plan (August 2006)*.

3. The EPA made a finding of adequacy for transportation conformity purposes for the MVEB in the *Yuma PM10 Maintenance Plan (August 2006)* in a letter to the Arizona Department of Environmental Quality dated June 1, 2007. No revisions have been made to the ***2006 Yuma PM10 Maintenance Plan*** since 2006, and the finding remains in effect. The Federal Highway Administration issued a Finding of Conformity with respect to the 2007-2010 Transportation Improvement Plan on March 10, 2008, in a letter to the Yuma Metropolitan Planning Organization.

4. The increase in PM_{10} emissions due to increased VMT (Vehicle Miles of Travel) between 2011 and 2016 is an estimated 3.5 tons per day while the daily average reduction due to implementation of SIP RACMs from July 2009 to June 2010 is 1.02 tons per day (370.6 tons/year).

5. Implementation of the 2011-2016 TIP and 2011-2033 RTP will result in increased PM_{10} emissions of 22.8% thru 2011, while the expected VMT during this same period are expected to increase 24.5%. The ADEQ *Yuma PM_{10} Maintenance Plan (August 2006)* has an annual MVEB of 12,196 tons per year and for years prior to 2016 with a budget of 10,803 tons per year for year 2016 and any future years for the YMPO Region. The modeled emissions total for 2011-2016 is 8538 tons per year and for the 2011-2033 RTP is 10,881 tons per year.

5. Both the 2011-2016 TIP and the 2011-2033 RTP are in conformance with the SIP/Maintenance Plan based on emission credits of 370 per year assumed thru 2033.

I. INTRODUCTION

The 1990 Federal Clean Air Act Amendments (CAAA), promulgated November 15, 1990, placed tough new requirements on sources and causes of air pollution in areas failing to meet federal air quality standards. The 1990 Amendments required substantial reductions from all pollution sources, including pollutants from the transportation sector. The 1990 Amendments included stringent requirements to demonstrate that transportation plans and projects contribute to improvements in air quality. On November 15, 1993, the United States Environmental Protection Agency (EPA) published a transportation conformity rule delineating specific criteria and procedures for fulfilling the conformity requirements of the 1990 Amendments. This rule was updated, published in the Federal Register August 15, 1997, and became effective September 15, 1997. The transportation conformity rule is codified in the Code of Federal Regulations (CFR) Title 40 Part 93 Subpart A. Additional portions of the CFR referring to conformity that apply to conformity implementation plans are included in Part 51. References to the 1997 conformity rule contained in this conformity finding generally refer to Part 93 unless otherwise indicated. The rule has been amended nine times, and restructuring amendments have been proposed in 2010. Details on the amendments are available on EPA's web site at http://www.epa.gov/otaq/stateresources/transconf/conf-regs-c.htm.

This Air Quality Conformity Determination complies with all of the governing statutes, regulations and guidance, including the Transportation Conformity Rule; statutory changes made by the Transportation Equity Act for the 21st Century (TEA-21) enacted June 9, 1998; the June 18, 1999,

FHWA/FTA Additional Supplemental Guidance; Federal Highway Administration guidance available at http://www.fhwa.dot.gov/environment/conformity/con_pol.htm; the May 14, 1999 United States Environmental Protection Agency *Conformity Guidance on Implementation of the March 2, 1999 Conformity Court Decision*; EPA's July 2004 *Companion Guidance for the July 1, 2004, Final Transportation Conformity Rule, Conformity Implementation in Multi-Jurisdictional Nonattainment and Maintenance Areas for Existing and New Air Quality Standards*; EPA's March 2006, *Transportation Conformity Guidance for Qualitative Hot-Spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas;* EPA's April 16, 2007, guidance Memorandum entitled *Transportation Conformity and the Revised 24-Hour PM2.5 Standard;* EPA's September 25, 2008, guidance Memorandum entitled *Transportation Conformity in PM10 Nonattainment and Maintenance Areas and the Revocation of the Annual PM10 Standard;* jointly issued EPA and U.S. Department of Transportation December 2008, *Guidance for the Use of Latest Planning Assumptions in Transportation Conformity Determinations, Revision to January 18, 2001 Guidance Memorandum;* and EPA's January 2009, *Guidance for Implementing the Clean Air Act Section 176(c)(8) Transportation Control Measure Substitution and Addition Provision***.** These documents are available on EPA's web site at http://www.epa.gov/otaq/stateresources/transconf/policy.htm**.** In May 2010, EPA released a draft guidance document entitled *Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas* for public comment, and the comment period closed July 19, 2010. Final guidance has not yet been issued.

TRANSPORTATION CONFORMITY

Purpose

Transportation conformity ("conformity") is a requirement in Section 176(c) of the Clean Air Act that ensures that Federal funding and approval goes to those transportation activities that are consistent with air quality goals. Conformity applies to transportation plans and projects funded or approved by the Federal Highway Administration (FHWA) or the Federal Transit Administration (FTA) in areas that do not meet or previously have not met air quality standards for ozone, carbon monoxide, particulate matter, or nitrogen dioxide.

Statutory References

On August 10, 2005, the President signed into law the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users **(**SAFETEA-LU**).** The air quality conformity process was improved with changes in the frequency of conformity determinations and conformity horizons. See SAFETEA-LU Section 6011 for details. SAFETEA-LU has been extended for 18 months but reauthorization has not yet occurred.

Other: 42 USC §7506

Key Modifications to Transportation Conformity in SAFETEA-LU

- Requiring MPOs to re-determine conformity of the plan and TIP not later than 2 years after motor vehicle emission budgets are found adequate, the budgets are approved (if they had not yet been found adequate), or a Federal Implementation Plan (FIP) approval that establishes/revises budgets. [6011(a)]

- Requiring the frequency of conformity for plans and TIPs to be every four years, except when the MPO elects to update the plan or TIP more frequently, or when SIP actions trigger a new conformity determination. [6011(b)]
- Requiring conformity determinations for the last year of the transportation plan, but allowing, at the election of the MPO, and after consultation with the applicable air agency and public comment, conformity to be demonstrated for the longer of: (1) the first ten-year period of the plan, (2) the latest year the SIP has a budget, or (3) the year after completion of a regionally significant project that is in the TIP or one that requires approval before the subsequent determination. Such conformity determinations would need to be accompanied by a regional emissions analysis for the last year of the transportation plan and any year shown to exceed budgets by a prior analysis. [6011(c)]
- Allowing at the election of the MPO, after consultation with the applicable air agency and public comment, conformity to be demonstrated only through the end of the maintenance period once budgets are found adequate or approved for the second ten-year maintenance plan. [6011(c)]
- Providing that substitute TCMs can replace or be added to existing TCMs in approved SIPs, if (1) the substitute achieves equal or greater emissions reductions; (2) the schedule is consistent with existing TCM, or if the implementation date has passed, as soon as practicable, but no later than date reductions are needed; (3) adequate personnel, funding, and enforcement are demonstrated; and (4) the substitute is developed through a collaborative process that includes public comment and concurrence by the MPO, the air agency, and EPA. No substitution mechanism in the SIP is needed, and substitution does not require a new conformity determination or SIP revision. [6011(d)]
- Defining lapse in Clean Air Act, and providing that a lapse will not occur until 12 months after an applicable deadline. [6011(e)]
- Providing that the Conformity SIP only needs to include consultation procedures, and enforcement and enforceability criteria and procedures to address 40 CFR 93.122(a)(4)(ii) and 40 CFR 93.125(c). [6011(f)]

FHWA Transportation Conformity Findings

After EPA makes a finding that the MVEB in the State Implementation Plan for air quality is adequate to attain or maintain the air quality standards, the metropolitan planning organization makes transportation conformity determination and submits it to FHWA to make a Transportation Conformity Finding. The most recent FHWA/FTA conformity finding was issued on March 10, 2008, for the 2007-2010 TIP through September 30, 2010.

The latest YMPO transportation conformity determination covers the YMPO TIP Fiscal Years 2011-2016 and the YMPO 2011-2033 RTP. The TIP Fiscal Years 2011-2016 is a comprehensive update, and its conformity is being determined for the second time. The 2011-2016 TIP was also found to be in conformity with the 2011-2033 RTP and STIP. Please note that although the title of the TIP approved by the YMPO Executive Board refers a five-year period, the federally-recognized portion of the TIP for which conformity is being determined is the first four years listed in the title. The first four years of a TIP are known as the *triennial element*.

A. Organization of Conformity Finding

This conformity documentation is organized in the same general order as the FHWA conformity documentation checklist developed by FHWA and EPA to facilitate review. The checklist dated November 15, 1999 was used for development of this conformity determination. Items covered in this conformity finding include the following:

1. RTP and TIP Status;

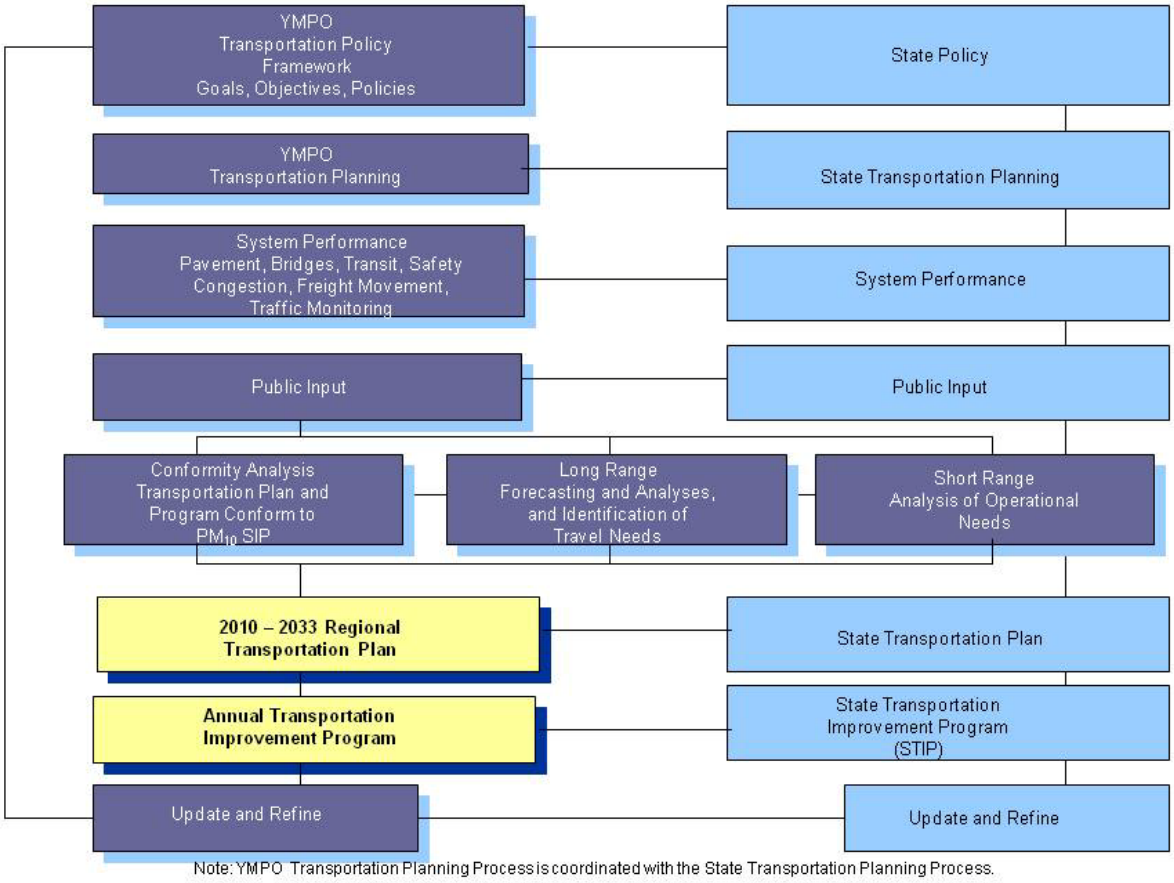
2. Non-attainment and Maintenance Area Designations;
3. SIP and Maintenance Plan Status:
4. Transportation Conformity Criteria and Procedures;
5. Emissions Budget and Emissions Reduction Tests; and
6. Projects included in the TIP.

II. REGIONAL TRANSPORTATION PLAN AND TIP STATUS

The Yuma Metropolitan Planning Organization (YMPO) adopted and made a conformity determination for the 2006 Regional Transportation Plan (TIP) in August 2007, which was subsequently approved by FHWA/FTA in March 2008. Presently, the YMPO is making a conformity finding for the TIP Fiscal Years 2011 through 2016 and for the 2011-2033 RTP following 40 CFR 93.104. This document and Resolution No. 118 adopted by the YMPO Executive Board February 25, 2010 documents this finding (Figure *4)*. The Yuma Area Conformity Analysis is an integral part of the YMPO Transportation Planning and Air Quality Conformity Process as described below in Figure 2.

FIGURE 2

YMPO Transportation Planning and Air Quality Conformity Process



Note: YMPO Transportation Planning Process is coordinated with the State Transportation Planning Process.

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The 2011-2033 RTP complies with applicable conformity requirements of implementation plans (40 CFR 93.109(a)) through June 2011. The regional transportation emissions analysis was developed in accordance with the requirements of 40 CFR § 93.122.

A. Financial Constraint

The projects included in the traffic model for this conformity, the 2011-2033 RTP and the TIP Fiscal Years 2011-2016, have been fiscally constrained in accordance with requirements of 40 CFR 93.108 and consistent with the Department of Transportation metropolitan planning regulations in Title 23 CFR Part 450. A discussion of financial constraint, funding sources, and timing is included in the financial element of the YMPO 2011-2033 Regional Transportation Plan.

B. Compliance with Plans and Court Orders

This conformity determination complies with applicable conformity plans, conformity guidance, and court orders. Since YMPO's last conformity finding approved by FHWA/FTA on March 10, 2008, new guidance and a 2006 court ruling have been issued (40 CFR 93.109) as noted above.

C. Content of Transportation Plans

The RTP and TIP include all federal and non-federal regionally significant projects expected to be implemented in the non-attainment area (40 CFR 93.122) and meet the content requirements of 40 CFR 93.106 in conformance with YMPO previous practices and policies (Figures 6 and 7).

III. NON-ATTAINMENT AND MAINTENANCE AREA DESIGNATIONS

A. Planning Area

Yuma County comprises the southernmost part of the Colorado River Valley. The City of Yuma, the county seat, is located just south of the confluence of the Colorado and Gila Rivers. The non-attainment area is geographically located in the far southwest portion of the Lower Colorado River Valley as shown in Figure 1. This PM_{10} non-attainment area contains a total of 16 full and partial townships comprising approximately 456 square miles or 300,000 acres. Conformity for the Yuma non-attainment area includes an analysis of existing and future air quality impacts for particulate matter less than 10 microns aerometric in diameter (PM_{10}). Table 1 below lists the federal non-attainment/maintenance status of the applicable pollutant.

TABLE 1
Federal Attainment and Maintenance Status

Pollutant	Status	Non-attainment/Maintenance
PM_{10}	– Pending redesignation to attainment	Moderate Non-attainment

On August 18, 2006, ADEQ submitted a re-designation request and a 10-year Yuma PM_{10} Maintenance Plan for EPA approval, which is pending approval in 2010.

B. EPA Adequacy Finding

The Build/No Build Test was applied to transportation projects in the Yuma PM10 nonattainment area until 2007. On May 30, 2007, EPA found that the MVEB for PM-10 in the *2006 Yuma PM-10 Maintenance Plan* is adequate for transportation conformity purposes. As a result of EPA's adequacy finding, the Yuma Metropolitan Planning Organization and the Federal Highway Administration must use the 10,803 TPY MVEB in the submitted Maintenance Plan for conformity determinations for 2016 and 12,169 TPY for 2005.

IV. SIP AND MAINTENANCE PLAN STATUS

The Arizona Department of Environmental Quality (ADEQ) prepared the Yuma PM_{10} Non-attainment Area State Implementation Plan (SIP). The initial moderate nonattainment area PM10 SIP was submitted to the U.S. Environmental Protection Agency (EPA) in November 1991. EPA did not approve that SIP or a subsequent revision by ADEQ in 1994 was also not approved. The PM_{10} emissions requirement in 1994 was 393.0 tons per year (TPY), which has been superseded by the Maintenance Plan MVEB of 12,169 and 10,803 TPY after EPA's adequacy finding in 2007.

TABLE 2
SIP Status PM_{10}

SIP	Date of State Adoption	Date Submitted to EPA	EPA Action	EPA Approval
Moderate Area Plan Revised	June 1994	November 1994	No Action	None
Maintenance Area Plan Revised	August 2006	August 2006	Pending Action	Pending

ADEQ and numerous local stakeholders will develop an updated SIP/Maintenance Plan with approval expected from EPA in 2011. Three consecutive years of Air Quality monitoring data are required to demonstrate attainment as a basis for and a 10-year maintenance plan is also required for redesignation.

Conformity analyses were prepared and adopted by the YMPO on December 2, 2010, for the years 2011, 2016, 2026 and 2033. Each analysis demonstrates conformity between the SIP/Maintenance Plan and both the TIP and the RTP.

V. TRANSPORTATION CONFORMITY CRITERIA AND PROCEDURES

This section documents transportation conformity criteria and procedures, including the most recent planning assumptions, emissions models, measured PM_{10} emission levels, consultation procedures, public involvement processes, and TCMs in approved plans.

A. Latest Planning Assumptions

The socioeconomic data was developed considering estimates/projections of growth and land uses consistent with local agency general plans. Other modeling parameters were developed or identified consistent with information and data provided by EPA, ADOT, the U.S. Census Bureau, and other sources. The 6.1% growth estimate projected in 2006 has been adjusted downward in response to the recession that began in 2007 and continues to impact growth in Yuma and throughout Arizona.

Current and future year road networks were developed considering local agency circulation plans, the YMPO TIP and RTP, local entity capital improvement programs (CIPs), and the Arizona Department of Transportation Improvement Program (STIP). The transportation model is comprised of approximately 511 traffic analysis zones (TAZs). These TAZs encompass the southwestern one-third of Yuma County and include three incorporated cities, one Indian Reservation, and several unincorporated areas. Also an interstate highway (I-8) crosses the county from east to west, and a federal highway (U.S. 95) runs north to south. Travel to and from these adjacent areas is considered during the trip generation process and is identified as special generators.

The road network is a computerized representation of the Major Street and highway system within the study area (Figure 3). Only the more important streets, generally federal and state highways, arterials, and major collectors, are included in the network. The model does not include minor collectors or local streets. Minor collectors and local streets are represented by simplified network links (zone centroid connectors) that represent local connections to the adjacent major roadway network.

Vehicle miles of travel (VMT) are validated to a 2009 base year (40 CFR § 93.110). Growth in population results in increased demand for mobility. Table 3 shows the historical increase in population between 2000 Census counts and the Arizona Department of Economic Security POPTAC population estimates for 2008. The population forecasts for years 2011, 2016, 2026, and 2033--the end year of the current RTP--are based on the modeled area only and exclude portions of the county not in the non-attainment area and areas east of the Gila Mountains.

TABLE 3

YUMA COUNTY POPULATION

BY YEAR AND BY JURISDICTION IN THE NON ATTAINMENT AREA

	ENTIRE COUNTY				MODELED AREA ONLY				
ENTITY	**2006**	**2007**	**2008**	**2009**	**2011**	**2016**	**2022**	**2026**	**2033**
CITY OF YUMA	92,160	93,241	95,442	97,610	101,878	112,008	123,026	129,874	140,684
CITY OF SOMERTON	10,258	10,758	11,253	11,741	12,700	14,979	17,457	18,997	21,428
CITY OF SAN LUIS	*24,485*	*26,018*	*27,534*	*29,027*	*31,967*	*38,945*	*46,534*	*51,251*	*58,696*
TOWN OF WELLTON	1,998	2,026	2,054	2,081	2,134	2,261	2,399	2,485	2,621
BALANCE OF COUNTY	66,598	69,392	71,022	72,627	75,786	83,287	91,445	96,516	104,519
TOTAL	**195,499**	**201,435**	**207,305**	**213,086**	**224,465**	**251,480**	**280,861**	**299,123**	**327,948**

1. Source: U.S. Census Bureau, 2000 Census Yuma County
2. Source: AZDES Annual Estimates

AZDES POPTAC estimates in conjunction with the estimates included in the 2010-2033 RTP.

Table 3 indicates that between 2006 and 2007, Yuma County's estimated average population growth was +3.03% per year. YMPO projected the population to be 201,435 for 2007 and projects a 2008 model year Yuma County population of 207,305 and is likely to increase to 224,465 by 2011 and an additional 58% from 2008 to 2033 barring any substantial changes in expected growth patterns. The growth in population will translate into demand for mobility.

One can draw a parallel between the increase in population growth and the corresponding increase in average daily traffic growth since 1996. The YMPO's Traffic Count Program shows that traffic has grown an average of +2.00% annually since 2005. (Table 4).

TABLE 4
GROWTH IN AVERAGE DAILY TRAFFIC

YEAR	TRAFFIC COUNTS	ANNUAL GROWTH
1997	1,473,597	3.43%
1998	1,270,400	-13.79%
1999	1,314,564	3.48%
2000	1,319,625	0.38%
2001	1,356,350	2.78%
2002	1,393,035	2.70%
2003	1,428,282	2.53%
2004	1,420,756*	-0.53%*
2005	1,490,664	4.69%
2006	1,561,133	4.80%
2007	1,539,443	-1.00%
2008	1,581,264	1.03%
2009	1,603,661	1.83%
5 YEAR AVERAGE CHANGE		+2.00%

*This number represents a restructuring of the axle classification for the count year. Because of more accurate axle count data, this figure is likely not representative of the actual percentage of traffic growth in the region. Consequently, YMPO did not utilize this count when determining the 5 Year Average Change but instead utilized counts from 2001, 2002, 2003, 2005, and 2006. These count totals also exclude interstate travel count sites.

Assuming this same average annual growth in average daily traffic throughout the five years of the currently adopted TIP, average daily traffic would be expected to grow by 17.5%. Table 5 indicates the expected growth in vehicle-miles-traveled (VMT). In contrast, the model analyses show a projected increase in VMT of 29.4% between FYs 2011-2016 (Table 5).

TABLE 5
VMT - One vehicle traveling one mile of street per day
Source: Calibrated 2010-2033 Transportation Model

Year	TOTAL VMT (Miles)	Emissions Tons/Year
2011	4,477,793	8,538
2016	5,795,372	9,840
2026	6,856,065	10,567
2033	7,465,327	10,881

Projections of housing and employment were based upon a combination of overall county growth and local community plans. The population growth of Yuma County between 2000 and 2006--based on official census counts and AZDES 2008 estimates--is estimated to be +3.77% per year, with average daily traffic growth during the last five years being +2.00%.

In trip generation, the demand for mobility is a function of population growth and changes in land uses. Land use forecasts were made by the YMPO and projections provided by the planning agencies of the City of Yuma, Yuma County, City of Somerton, City of San Luis, Town of Wellton, and Cocopah Indian Tribe. Population forecasts were made using 2000 census data, data provided by the Arizona Department of Economic Security, and adjusted for POPTAC inaccuracy (40 CFR § 93.106).

TABLE 6
MODELED AREA SOCIO-ECONOMIC AND VMT DATA

YEAR	POPULATION	OCCUPIED DWELLING UNITS	VMT
2007	191,304	68,322	4,432,105
2008	197,660	70,592	4,474,932
2011	220,400	76,000	4,477,793
2016	246,700	83,700	5,795,372
2026	293,600	99,900	6,856,065
2033	323,400	109,700	7,465,327

As land use patterns change to urban and become more intensified, more trips will be produced and, ultimately, attracted to a destination. These Air Quality Conformity Analyses examine that increase in travel demand and will show that, even with the increased travel area wide, vehicle and fugitive PM_{10} emissions will remain below the level needed for attainment.

B EMISSIONS MODEL

The TransCAD 4.8 traffic forecasting microcomputer software was used to estimate the vehicles-miles traveled (VMT) on the transportation network. TransCAD, PC ARC/INFO, and Arc View software programs were used extensively to gather, analyze, and manage roadway network data; to gather and manage socioeconomic data; and to compute daily emissions by functional classification. The objective for this PM_{10} air quality analysis was to determine the average daily amount of PM_{10} emitted due to vehicular traffic on the highway network. Individual steps for conducting the technical analysis were as follows:

1. Define Geographical Scope and Analysis Parameters
2. Collect Demographic, Roadway Network, and Traffic Data
3. Estimate Traffic Volumes, VMT, and Vehicles Speeds
4. Estimate Emissions Factors
5. Calculate Particulate Emissions

EPA's Mobile 6.2 model, based on the AP-42 methodology, is used to compute particle emission factors from on-road automobiles, trucks, and motorcycles for particle sizes of 1 – 10 microns. The particulate matter includes exhaust particulate components; brake and tire wear, and re-entrained road dust. (40 CFR § 93.122) The final product of this conformity analysis was the total yearly vehicle particulate emissions generated in the modeling domain based on the emissions budget issued from EPA with projects lists for 2011, 2016, 2026, and 2033.

C PM_{10} EMISSIONS ESTIMATES

PM_{10} emission factors were used to compute emissions on both aggregate and disaggregate basis. VMT for local roads were aggregated for the entire region and the regional emissions was the product using the emissions factor. The disaggregate approach was used for calculating emissions

from TransCAD based on facility type for non-local roadways. The facility type emissions were then summed to compute the regional total emissions. This breakdown by facility type allows determination of which type facilities contribute most to particulate emissions (40 CFR 93.122).

EPA-recommended MOBILE 6.2 Vehicle Emission Modeling Software and procedures were utilized in generating PM_{10} emission factors. Vehicle miles traveled (VMT), average travel speed, and vehicle hours traveled data for each facility type was compiled using the Yuma Metropolitan Planning Organization (YMPO) travel demand model. This data was then input into the Mobile 6.2 software. In addition, other Mobile 6.2 input parameters such as temperature, humidity, and vehicle fleet characteristics were reviewed and updated as necessary. Emission factors for each facility type were then obtained from Mobile 6.2 output. Emission factors were used in conjunction with vehicle miles traveled information to determine the total vehicle emissions for horizon years 2016 and 2026 and for 2033.

Tables 7 and 8 below show the Yuma 2011 and 2016 Particulate Matter (PM_{10}) Conformity Analysis, respectively. Table 11 shows the expected change in PM_{10} vehicle emissions for the period of the 2011-2016 Transportation Improvement Program. Tables 9 and 10 show the Yuma 2026 and 2033 Particulate Matter (PM_{10}) Conformity Analysis, respectively. Table 11 summarizes the findings that of the Yuma Region which reinforces the findings that the Yuma Region will continue to model emissions well within the 12,169 budget thru 2016 and the emissions budget of 10,893 for 2016 thru 2033.

TABLE 7

YUMA 2011 PARTICULATE MATTER (PM10) CONFORMITY ANALYSIS

Facility Type	Daily VMT (miles)	Daily VHT	Modeled Speed	Speed Used	Silt Loading	Factor (kg/mi)	Total (kg/day)
Interstate	568,235.00	12,158.14	46.99	55.00	0.04	0.00	202.95
Principal Arterials	929,167.00	23,144.49	40.15	42.00	0.30	0.00	1,656.99
Minor Arterials	759,405.00	21,827.21	34.79	40.00	0.30	0.00	1,354.25
Rural Major Collectors	79,778.00	2,122.85	37.58	45.00	0.70	0.00	256.74
Rural Minor Collectors	336,455.00	8,056.32	41.76	46.00	0.70	0.00	1,082.76
Urban Collectors	199,928.00	6,272.67	31.87	35.00	0.24	0.00	303.81
Local Roads	2,074.00	62.16	33.37	35.00	0.85	0.00	7.62
Interstate Ramps	33,225.00	953.72	34.84	35.00	0.04	0.00	11.87
Local paved	1,467,512.21			20.00	0.85	0.00	5,391.47
Local unpaved	102,194.47			10.00		0.11	10,997.30
DAILY TOTALS	**4477973.688**	**80,579.21**					**21,265.75**
					PM10 Emissions (tons/day)		**23.39**
					PM10 Emissions		**8,538.20**

	(tons/year)

TABLE 8

YUMA 2016 PARTICULATE MATTER (PM10) CONFORMITY ANALYSIS

Facility Type	Daily VMT (miles)	Daily VHT	Modeled Speed	Speed Used	Silt Loading	Factor (kg/mi)	Total (kg/day)
Interstate	714,687.00	15,201.26	47.01	55.00	0.04	0.000349	249.399734
Principal Arterials	1,465,529.00	38,903.03	37.67	42.00	0.3	0.001775	2601.46954
Minor Arterials	826,174.00	26,097.01	31.66	40.00	0.3	0.001775	1466.54655
Rural Major Collectors	116,045.00	5,580.43	20.79	45.00	0.7	0.003210	372.496922
Rural Minor Collectors	505,919.00	13,583.25	37.25	46.00	0.7	0.003210	1623.96717
Urban Collectors	332,977.00	11,566.50	28.79	35.00	0.24	0.001511	503.252219
Local Roads	696.00	14.03	49.61	35.00	0.85	0.003666	2.55131552
Interstate Ramps	38,422.00	1,111.72	34.56	35.00	0.04	0.000349	13.4078787
Local paved	1,688,176.49			20.00	0.85	0.003666	6188.32025
Local unpaved	106,747.00			10.00		0.107603	11486.3266
DAILY TOTALS	**5795372.493**	**80579.20997**					**24507.7382**
					PM10 Emissions (tons/day)		**26.958512**
					PM10 Emissions (tons/year)		**9839.85689**

TABLE 9

YUMA 2026 PARTICULATE MATTER (PM10) CONFORMITY ANALYSIS

Facility Type	Daily VMT (miles)	Daily VHT	Modeled Speed	Speed Used	Silt Loading	Factor (kg/mi)	Total (kg/day)
Interstate	1,096,232.00	22,185.67	50.42	55.00	0.04	0.000345	378.26974
Principal Arterials	1,495,739.00	39,431.66	37.93	42.00	0.30	0.001771	2649.2621
Minor Arterials	1,021,667.00	28,092.33	36.37	40.00	0.30	0.001771	1809.5829
Rural Major Collectors	345,049.00	10,415.43	33.13	45.00	0.70	0.003206	1106.2392
Rural Minor Collectors	239,843.00	6,464.51	37.10	46.00	0.70	0.003206	768.94508
Urban Collectors	444,201.00	14,543.30	30.54	35.00	0.24	0.001507	669.62071
Local Roads	4,072.00	87.00	46.81	35.00	0.85	0.003662	14.910781
Interstate Ramps	37,363.00	1,080.46	34.58	35.00	0.04	0.000345	12.892611
Local paved	2,066,482.17			20.00	0.85	0.003662	7567.0098
Local unpaved	105,416.91			10.00		0.107599	11342.793
DAILY TOTALS	**6856065.085**	**80579.21**					**26319.526**
					PM10 Emissions (tons/day)		**28.951479**
					PM10 Emissions (tons/year)		**10567.29**

TABLE 10

YUMA 2033 PARTICULATE MATTER (PM10) CONFORMITY ANALYSIS

Facility Type	Daily VMT (miles)	Daily VHT	Modeled Speed	Speed Used	Silt Loading	Factor (kg/mi)	Total (kg/day)
Interstate	1,161,716.00	23,714.37	49.98	55.00	0.04	0.000344	400.1689
Principal Arterials	1,574,490.00	43,585.75	36.12	42.00	0.30	0.001771	2787.802
Minor Arterials	1,122,115.00	31,967.89	35.10	40.00	0.30	0.001771	1986.824
Rural Major Collectors	401,054.00	12,388.38	32.37	45.00	0.70	0.003205	1285.553
Rural Minor Collectors	266,887.00	7,915.03	33.72	46.00	0.70	0.003205	855.489
Urban Collectors	499,945.00	16,804.86	29.75	35.00	0.24	0.001507	753.3533
Local Roads	4,230.00	91.13	46.42	35.00	0.85	0.003661	15.48681
Interstate Ramps	40,535.00	1,184.82	34.21	35.00	0.04	0.000344	13.96283
Local paved	2,295,867.91			20.00	0.85	0.003661	8405.593
Local unpaved	98,487.58			10.00		0.107599	10597.14
DAILY TOTALS	**7465327.491**	**80579.21**					**27101.37**
					PM10 Emissions (tons/day)		**29.81151**
					PM10 Emissions (tons/year)		**10881.2**

TABLE 11
2011, 2016, 2026, and 2033 AVERAGE DAILY PM_{10} EMISSIONS

Year	Total VMT	Total kg/day	Total Tons/day
2011	4,477,973	21,265	23.39
2016	5,795,372	24,507	27.96
2026	6,856,065	26,319	28.96
2033	7,465,327	27,101	29.81

Vehicle emissions (tons/day) will increase by 7% while demand for mobility in terms of VMT will increase by 16.3% from 2011-2016.

3. Yuma Air Quality

The Clean Air Act, which was last amended in 1990, requires the Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) (40 CFR Part 50) for pollutants considered harmful to public health and the environment. The Clean Air Act established two types of national air quality standards, a primary standard to protect public health and a secondary standard to protect welfare.

The EPA has set NAAQS for six principal pollutants, which are called "criteria" pollutants. Yuma has always been an attainment area for carbon monoxide, and transportation conformity is not applicable to it for the Yuma planning area. Two other air pollutants related to transportation are presented in Table I-2. Units of measure for the standards are parts per million (ppm) by volume and micrograms per cubic meter of air ($\mu g/m^3$). Through 2010, Yuma has always been an attainment area for ozone, but EPA recently proposed to reduce the allowable ozone in the air from 0.075 ppm to a level between 0.060 and 0.070 ppm for the primary standard and proposed a new secondary standard called W126 focused on seasonal ozone concentrations that affect vegetation including agricultural crops. The revised 2010 ozone NAAQS will be established by the end of 2010 after public meetings, a comment period, and a final review. Depending on the level and form of the promulgated ozone NAAQS revisions, transportation conformity requirements could be required for ozone in Yuma in future years.

Yuma has been a moderate nonattainment area for PM10 since the 1990 Clean Air Act Amendments, by operation of law. Violation of the 24-hour standard caused the area to be in non-attainment status. A violation occurs when more than three exceedances of the NAAQS are recorded at the same monitor within a consecutive 3-year period. EPA revoked the annual standard for PM10 on December 18, 2006 (71 FR 61144). Prior to 1994, the PM_{10} standard was exceeded in Yuma on four different occasions. The 24-hour standard was violated at the Juvenile Center in 1988, 1990 and 1991, and the annual average standard of 50 ug/m^3, in effect at that time, was violated in 1989 and 1990. Ambient PM_{10} data for 1996-2009 is shown below in Table 8. A review of the data shows that only one exceedance occurred through 2006; both the 24-hour and the annual average PM_{10} standards were exceeded during a high wind event in August 2002. ADEQ determined, however, and EPA concurred, that these exceedances in August 2002 were caused by an "exceptional event" that overwhelmed Best Available Control Measures (BACMs), and they were flagged for exclusion from consideration in attainment status determinations in accordance with EPA's Natural Events Policy and ADEQ's related policy applicable at that time. A Natural Event Action Plan was developed and implemented as required by EPA and ADEQ Policies.

On May 21, 2007, EPA promulgated an Exceptional Events Rule, superseding its Natural Events Policy and its Exceptional Events Policy. The new rule also incorporated provisions in SAFETEA-LU that exclude from the definition of "exceptional event" in 40 CFR § 50.1 "…stagnation of air masses or meteorological inversions, a meteorological event involving high temperatures or lack of precipitation, or air pollution relating to source noncompliance."

A comprehensive list of ADEQ flagged PM10 data appears below in **Table 12: Yuma Region Exceptional Weather Event Dates.** For the period 2005-2007, much of the PM_{10} data contained a high bias that was associated with the Beta Attenuation Monitor (BAM) that was in place from 2004

through November 7, 2007. The BAM monitor was removed in November 2007 and was replaced with a Tapered Element Oscillating Microbalance (TEOM) monitor. Filter-based and continuous PM_{10} monitoring occurred simultaneously during the period 2005 to 2009. The Juvenile Center filter-based monitor was moved to the adjacent court building in 2002 and was later removed permanently in July 2009. ADEQ currently operates a continuous Federal Equivalent Method (FEM) PM_{10} sampler at the Yuma Supersite, operating on an everyday schedule.

Ozone

Yuma MSA (Yuma County) – ADEQ closed the monitor at the Arizona Game and Fish Department in Yuma at the end of the 2008 monitoring season due to logistical problems beyond ADEQ's control. ADEQ reopened the Yuma Supersite SLAMS (used during the Western Arizona Sonora Border Air Quality Study in 2006-2007) and operated an O_3 monitor there during the 2008 season beginning in May for data comparison and is now the only site in this MSA.

For the Yuma area, nonattainment status required development of a *Yuma PM_{10} Non-attainment Area State Implementation Plan* (SIP). A PM10 nonattainment area SIP was submitted to EPA in 1991 and a revised version was submitted to EPA in 1994, but EPA never acted on either plan. Three consecutive years of monitoring data demonstrated attainment after 2002, and the *Yuma PM_{10} Maintenance Plan (August 2006)* and accompanying redesignation request were submitted to EPA in 2006. Although EPA has not acted on the Maintenance Plan as a whole, in 2007 EPA did make an Adequacy Finding for the MVEB in it. Thereafter, a determination of conformity between the MVEB in the SIP and the adopted RTP, TIP, and related local entity Capitol Improvement Plans replaced the Build/No Build Test. The approved MVEB for PM10 is 12,169 TPY for 2005 and 10,803 TPY for 2016.

TABLE 12:

SELECT NATIONAL AMBIENT AIR QUALITY STANDARDS

Pollutant	Level	Averaging Time
Particulate Matter (PM_{10})	150 µg/m^3	24-hour [2]
Particulate Matter ($PM_{2.5}$)	15.0 µg/m^3	Annual [3] (Arithmetic Mean)
	35 µg/m^3	24-hour [4]
Ozone	0.075 ppm (2008 std)	8-hour [5]

(2) Not to be exceeded more than once per year on average over 3 years.
(3) To attain this standard, the 3-year average of the weighted annual mean PM2.5 concentrations from single or multiple community-oriented monitors must not exceed 15.0 µg/m^3.
(4) To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m3 (effective December 17, 2006).
(5) To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm. (Effective May 27, 2008)

TABLE 13

AMBIENT PM_{10} DATA in YUMA

1995-2009

YEAR	SITE	150 STD 24 Hour Reading High ($\mu g/m^3$)	24 Hour Reading 2nd High ($\mu g/m^3$)	50 STD Annual Average ($\mu g/m^3$)	No. of Exceedances of 24 Hour Standard
1996	Juvenile Center	103	83	37.1	0
1997	Juvenile Center	108	83	36.6	0
1998	Juvenile Center	112	106	40.1	0
1999	Juvenile Center	100	63	35.2	0
2000	Juvenile Center	132	99	42.3	0
2001	Juvenile Center	150	77	40.6	0
2002	Juvenile Center/ Courthouse	169	125	49.8	0*
2003	Courthouse	127	93	37.6	0
2004	Courthouse	114	102	39.1	0
2005	Courthouse (FRM)	93	85	34.4	0
	Courthouse (BAM)	134	116	47.5	0
2006	Courthouse (FRM)	151	114	39.6	0
	Courthouse (BAM)	198	194	46.9	5**
2007	Courthouse (FRM)	146	142	45.3	0
	Courthouse (BAM/TEOM)	349	320	51.8	13**
2008	Courthouse (FRM)	90	87	37.9	0
	Courthouse (TEOM)	386	252	43.7	4**
2009	Courthouse (FRM)	63	54	33.1	0
	Courthouse (TEOM)	306	218	41.0	6**

* Exceptional Event concurrence by EPA

** Data have been flagged as exceptional and supporting documentation has been submitted for 2007 and 2008 exceedances. Documentation will be submitted for 2009 exceptional events no later than three years after the calendar quarter in which the exceedance(s) occurred.

4. ADEQ "EXCEPTIONAL EVENT" DETERMINATIONS

Exceptional Events with which EPA concurs are excluded from attainment status determinations. ADEQ hosts "Exceptional Event" stakeholder meetings as needed to discuss local, state, and regional exceptional events prior to data flagging and submittal of documentation to EPA, including events resulting from, but not limited to, wind, thunderstorms, and fires that adversely affect air quality readings. Table 12 contains the dates that ADEQ has initially flagged as exceptional events in calendar years 2008 and 2009 in Yuma. ADEQ has three years from the close of the quarter in which an event occurred to submit a written "weight of evidence" analysis to exclude the monitor reading under the Federal Exceptional Events Rule (EER) at Title 40 CFR §§ 50.1(1) and 50.14 and Title 40 CFR Part 51, Subpart Y—Mitigation Requirements, all effective May 21, 2007). EPA concurrence is based on this analysis. The federal definition of exceptional event expressly excludes stagnation of air masses or meteorological inversions, a meteorological event involving high temperatures or lack of precipitation, or air pollution relating to source noncompliance. If EPA concurs, the monitor reading exceeding the NAAQS will be excluded from data used to determine attainment/nonattainment status or SIP administrative purposes. A description of ADEQ's policy for identifying exceptional events follows.

The substantive policy statement required by A.R.S. § 49-424, paragraph 3, for identifying air quality exceptional events takes into consideration Arizona's unique geological, geographical and climatologically conditions and other unusual circumstances. These substantive policy statements are developed and updated as appropriate.

Table 14: Yuma Region Exceptional Weather Event Dates

CALENDAR YEAR	DATES		
2008	March 2	May 21	June 4
	November 9		
2009	March 22	July 15	July 18
	October 27	December 7	December 22

The EER, ADEQ Policy 2009.001 and related Technical Criteria Document require that procedural and substantive requirements be met to exclude certain ambient air monitoring data from consideration by EPA in determinations concerning attainment of the NAAQS and designations and classifications of air quality planning areas. A public comment period is required before documentation is submitted to EPA. The EER, ADEQ Policy 2009.001, and Federal Fire Policies also require that the public be educated and notified in advance of expected exceptional events to enable them to minimize exposure to air pollutants.

D. CONSULTATION PROCEDURES

Interagency, conflict resolution and public involvement consultation procedures have been followed and are consistent with consultation procedures specified in 40 CFR §§ 93.105(a), 93.105 (c) and 93.105(e) and public involvement procedures are consistent with 23 CFR Part 450 and 40 CFR § 93.112. Procedures have been followed during development of the 2010-2033 RTP, FY 2011-2016 TIP, and the associated air quality finding. General requirements are outlined below.

YMPO, the Arizona Department of Environmental Quality (ADEQ) and ADOT must consult with each other and with the regional offices of the Environmental Protection Agency (EPA), FHWA, and FTA regarding development of the RTP, the TIP, and associated conformity determination.

Interagency consultation procedures shall include the general factors listed below:

1. Conduct quarterly interagency meetings to discuss air quality status, air quality plans, and revisions to the National Ambient Air Quality Standards; Motor Vehicle Emission Budgets in the State Implementation Plan for Yuma, transportation conformity, the TIP, the RTP, and amendments thereto, and to review and comment on draft documents;

2. YMPO will develop the draft RTP and TIP updates and draft an updated transportation conformity assessment on these plans at least six months before expiration of the latest TIP, including transportation and emissions modeling and PM_{10} Control Measures documentation. Findings on transportation conformity assessments will be made pursuant to interagency consultation and comments received;

3. YMPO will distribute draft RTP and TIP updates and a draft updated transportation conformity assessment to all the agencies listed above at least 30 days before a quarterly meeting at which comments and edits are due, providing adequate opportunity to comment;

4. YMPO will distribute meeting notices and agendas to all the agencies listed above at least 5 business days before a quarterly meeting date and will distribute minutes of meetings listing assignments and assignees to these agencies within 10 business days after each quarterly meeting;

5. YMPO will review and consider all comments received during the interagency consultation process, complete appropriate revisions, and address comments in writing when requested by the commenting agency before opening the 30-day public comment period;

6. ADEQ will develop draft State Implementation Plan updates at least six months before any applicable submittal deadline; will distribute the draft to all agencies listed above at least 30 days before opening a public comment period to solicit agency corrections and comments; and provide at each quarterly consultation meeting the Yuma planning area the latest available air quality data, an update on exceptional events, and the latest EPA air quality updates including actions on exceptional events, plan submittals and approvals;

7. FHWA and FTA will identify deadlines necessary to avoid a transportation conformity freeze or lapse to assist ADOT, ADEQ, and YMPO in submitting updated MVEBs, TIPs, and RTPs in sufficient time for FHWA to make a timely Transportation Conformity Finding;

8. All agencies listed above will participate in conflict resolution processes as appropriate, including identification of transportation and transit projects exempt from transportation conformity and identification of starting and ending dates of comment periods, TIPs, RTPs, and any applicable grace periods;

9. YMPO will identify regionally significant and exempt projects;

10. ADOT will provide technical advice to YMPO to assist in its development of the RTP and TIP, amendments to these documents, best practices, and other transportation related projects;

11. YMPO, ADOT, FHWA and FTA will distribute copies of correspondence related to Yuma Transportation Conformity Findings, draft transportation documents and copies of final documents and supporting materials to the agencies. Distribution may be accomplished by providing a link to the agency's web site;

12. ADEQ will distribute copies of correspondence related to Yuma air quality data and plans, MVEBs, and exceptional events; draft Yuma air quality plans; final Yuma air quality plans; and exceptional events documentation. Distribution may be accomplished by providing a link to the agency's web site.

13. ADEQ will provide a period of at least 30 days for review and comment by other agencies and the public prior to taking final action to adopt Yuma air quality plans or to submit Yuma exceptional event documentation.

Details about the YMPO compliance with the procedures listed above are provided below. (40 CFR § 93.105)

1. YMPO monthly meetings of the Executive Board are open to the public. All items pertinent to Air Quality Conformity are posted on the agenda. The agenda is publicly posted in advance of the meeting.

2. The YMPO's 2010 Conformity Procedures were discussed and sent to local, state, and federal agencies for review/comment and advertised in the local newspaper requesting comments on November 3, 2010 and published on the YMPO website (www.ympo.org).

3. When the YMPO's 2010 Conformity Procedures were presented/discussed at the open public meeting of the Executive Board on December 2, 2010, the Executive Board received no comments.

4. The FY 2011-2016 TIP was discussed with member agencies at meetings on March 25, April 8, May 19, June 10, and July 8, 2010, and presented discussed at the open Public Meeting held at the Executive Board meeting on July 29, 2010 with no comments received. The TIP was revised and discussed at the TAC and Board to include comments on November 18, and to the Executive Board on December 2, 2010.

5. Draft copies of the FY 2011-2016 TIP were distributed to local, state and federal agencies in April 2010 for review and comment. A Public Meeting was held on draft TIP at the July 29, 2010 Executive Board meeting.

6. During several meetings in 2010 [February 11, March, October 5, and October 21, the YMPO and ADOT met with the Arizona Department of Environmental Quality (ADEQ), the designated "lead agency" to discuss the 2011-2016 updated TIP and the Yuma PM_{10} SIP.

7. TIP amendments were first submitted to member agencies for comment at the monthly Technical Advisory Committee meeting and then for an advertised public meeting at the open public meeting of the Executive Board. The proposed amendment was advertised in the local newspaper 30 days prior to the Public Meeting on the amendment.

8. The 2011-2016 TIP includes all federal and non-federal regionally significant projects expected and planned in the Yuma PM_{10} non-attainment area.

E. PUBLIC INVOLVEMENT

Public consultation procedures consistent with those specified in 40 CFR § 93.105(e) have been followed.

A draft FY 2010 Air Quality Conformity Procedures Outline was prepared and submitted to local, state, and federal agencies and made available to the public for a 30-day review period beginning November 2, 2010. The outline was adopted in an open meeting of the YMPO Executive Board on December 2, 2010.

On May 20, 2009 the YMPO held 2 public meetings at 2 locations to receive public input on the draft 2010-2033 Regional Transportation Plan. YMPO also held 1 public meeting December 8, and two on December 9, 2009. The draft document was also available on-line at the YMPO website (ympo.org), and a hard copy was available for viewing at the YMPO office. A public meeting was held at an open meeting of the YMPO Executive Board on October 29, 2009 and December 10, 2009, and another public meeting was held January 28, 2010, and finally February 25, 2010 at which time the RTP was adopted.

In addition, YMPO also hosted a series of meetings on October 28, 2009 to discuss possible areas of environmental mitigation with local, state, and regional stakeholders. A complete listing of the stakeholders and governing documents can be found on page 8 and 9 of the YMPO 2010-2033 Regional Transportation Plan.

The draft FY 2011-2016 TIP was submitted to all agencies and made available to the public for a 30-day review period beginning April 2010. A Public Meeting on the TIP was held at an open meeting of the YMPO Executive Board on July 29, 2010.

On December 2, 2010, the YMPO Executive Board during an open meeting held a public meeting on the 2010 Air Quality Conformity Analysis Report. At that Meeting, no comments were heard or received. The public review period for the draft ran from November 2, 2010 thru December 2, 2010 and the report was adopted at the same meeting. YMPO also hosted a meeting of the Environmental Collaboration contacts at the ADOT offices October 5, 2010 to solicit comments from local, state, and federal government agencies.

F. STATUS OF RACMs

Table 15 shows a listing of the Reasonable Available Control Measures (RACMs) that been and continued to be implemented in the Yuma PM_{10} area. The City of Yuma, Yuma County, and the City of Somerton adopted ordinances to implement certain RACMs. In addition, the local branches of the Irrigation and Drainage Districts, U.S. Immigration and Naturalization Service (Border Patrol), and the Arizona Department of Environmental Quality made commitments to assist attainment of the PM_{10} standard. (40 CFR 93.113, 40 CFR 93.110)

TABLE 15
IMPLEMENTED TRANSPORTATION CONTROL MEASURES IN THE YUMA PM_{10} AREA, AND PM_{10} REDUCTIONS

ANNUAL MEASURABLE RACMS	REDUCED PM_{10} TONS
Paving/Stabilizing/Closing Unpaved Streets/Roads: Cities of Yuma and Somerton Yuma County, Cocopah Indian Tribe MCAS, YPG	322.27
Reduced Travel on Canal Roads	0
Watering of roads/street sweeping	48.09
Ground Improvements	
TOTAL TONS PER YEAR	370.36

Table 15 shows a listing of the Reasonable Available Control Measures (RACMs) that been and continued to be implemented in the Yuma PM_{10} area. The City of Yuma, Yuma County, and the City of Somerton adopted ordinances to implement certain RACMs. In addition, the local branches of the Irrigation and Drainage Districts, U.S. Immigration and Naturalization Service (Border Patrol), and the Arizona Department of Environmental Quality made commitments to assist attainment of the PM_{10} standard. (40 CFR 93.113, 40 CFR 93.110)

As listed in Table 15 the implementation of the RACMs results in an annual reduction of 370 tons of PM_{10} emissions. This reduction when applied to the emission model results in a finding of conformity with the MVEB.

Due to the implementation of various RACMs other than those specifically related to transportation, additional reductions in PM_{10} emissions have occurred and will continue to have an impact. These measures include:

- **Traffic re-routing or rapid cleanup of temporary sources of dust and spills** – City of Somerton, Yuma County and City of Yuma have all enacted written policy to address track-out, street cleanup and re-routing.
- **Covering of haul trucks** – as enforcement of State Rule R18-2-406, the Cities of Yuma and Somerton along with Yuma County have continued to pursue ordinances to require all containers to be covered during transport operations.
- **Dust Control Plans for construction projects** – Yuma City Council passed an ordinance establishing a dust complaint sign regulations with penalties for violations; Yuma County requires a dust control plan as part of conditions of construction for activities one acre or greater for any type of construction activity; City of Somerton passed an ordinance to develop dust control plans.
- **Building Code Amendments** – City of Yuma has modified its Building Code for dust control; Yuma County requires dust mitigation as part of conditions of contracts.
- **Air Quality Advisory Board** – Did County Board ever establish?
- **State Rules** – Commitment to carry out rules and law of State of Arizona.
- **Additional controls via other agencies, entities** – Ongoing work with locally active federal agencies, the Bureau of Indian Affairs (BIA), and the Cocopah and Quechan Indian tribes to adopt resolutions or ordinances to reduce particular matter.
- **Agricultural burning** – As part of the State's Enhanced Smoke Management Plan via a Delegation Agreement with ADEQ, worked to strengthen Yuma County's Open Burn Program through limiting acres burned and reducing the number of acres of wheat stubble burned each year; in addition, as conflict resolution between Pest Management Program and air quality protection requirements, required orchard burns of ten or more trees to use an air curtain destructor.

In addition to the RACMs described in this section, ADEQ has worked with the agriculture community to establish PM_{10} emission reduction best management practices (AgBMPs). The rule for the Yuma Agricultural Best Management (AgBMP) Program, R18-2-613, can be found at http://www.azsos.gov/public_services/Title_18/18-02.htm#Article_6. Information detailing the Yuma AgBMP Program, including a recently published guide for the regulated community, can be found on the Arizona Department of Agriculture web site at http://www.azda.gov/ACT/AirQuality.htm. These AgBMPs include limiting tillage operations, restricting vehicle travel on unpaved roads, and changing general farm operations. The Yuma AgBMP Program has been implemented beginning in the second half of 2005. The program was expected to reduce PM_{10} emissions originating from agricultural operations by 13.7% from the 2005 baseline emissions (5,453 tons per year or 14.94 tons per day). Table 16 below summarizes the AgBMP Program's impacts.

TABLE 16
YUMA PM_{10} NON-ATTAINMENT AREA AGRICULTURAL EMISSION REDUCTIONS THROUGH AgBMPs

2005 Uncontrolled Agricultural PM_{10} Emissions (tons/yr)	PM_{10} Emissions Reductions (tons/yr)	% Reduction	Controlled Agricultural PM_{10} Emissions (tons/yr)
39,761	5,453	13.7	34,308

Compliance assistance for the Yuma AgBMP Program is administered by the Agricultural Consultation and Training Office of the Arizona Department of Agriculture, beginning in 2005, pursuant to an Interagency Agreement between ADEQ and the Arizona Department of Agriculture. Ongoing education and training on the AgBMPs applicable in the Yuma PM10 non-attainment area is accomplished through the following methods: presentations at meetings of the Yuma Farm Bureau, Natural Resource Conservation District and Irrigation Districts; booths at Yuma Lettuce Days and Yuma Workplace Safety events and four Yuma Southwest Agricultural Summits; articles in the Arizona Nursery Association Magazine, Yuma Daily Sun, and Department of Agriculture *Fly in the Eye* newsletter mailed to farmers; and on site visits. Printed outreach materials for the program were created in 2009 after significant collaboration with the Yuma agricultural community. Materials were delivered to the four Irrigation Districts, Yuma County Cooperative Extension office, Yuma Natural Resource Conservation Services office (NRCS), and the Yuma office of the Arizona Department of Agriculture.

The success of the Ag BMP Program is due to the fact that the Ag BMPs are reasonable and feasible. Because of this, their adoption has continued to grow throughout Yuma County, not only the non-attainment area. Several examples of changes in agricultural practices since the AgBMP Program has been adopted for Yuma are described below:

Bed Row Spacing – Produce continues to move towards wider beds with more plants per bed to reduce the soil disturbance due to cultivation and increasing the plant density. This is especially important as the number one crop in the non-attainment area is produce. Also, county wide, growers are using existing produce beds to plant and grow cotton, further reducing dust. This eliminates several trips across the field.
Chemical Irrigation - Continues to gain popularity as it is less expensive to apply chemicals this way versus driving a tractor across the field.
Combining Tractor Operations and Conservation Tillage – Both of these practices have gained in popularity as they lead to a reduction in fuel cost and hence diesel emission, due to fewer trips across the field.
Precision Farming – The acceptance of this technology continues to accelerate as the growers figure out how many passes they save by eliminating the implement overlap that was common in the industry.
Artificial Wind Barriers – While helping keep dust out of the produce fields to prevent gritty lettuce, there has been a co-benefit from keeping wildlife out thereby improving food safety.
Watering – This is still very popular as a way to suppress dust on non- crop land. Once the equipment has been purchased, the growers tend to use it everywhere they can.

Cross Wind Ridges – The success of this practice is due to the ability to change the direction of the beds to take advantage of the sunlight depending on the time of the year. Changing of the beds for sunlight also coincides with the seasonal changes in wind direction.
Multi Year Crops – Yuma County is now experimenting with almond orchards and olive groves. This is due to the availability of water in Yuma, in contrast to California's water shortage. Growers fully expect a continued increase in these acres.
Residue Management – New tillage tools are being purchased that does a better job of mixing the crop residue but leave enough on the surface to protect the soil from the wind. An example of these types of tools would be the CaseIH Ecolo Tiger 870.

DUST CONTROL ACTION FORECASTS

The Natural Events Action Plan developed for Yuma, included in the *Yuma PM10 Maintenance Plan (August 2006)*, requires ADEQ to issue Dust Control Action Forecasts three days in advance of predicted high wind events in Yuma. These forecasts are posted on ADEQ's web site and distributed by ADEQ to the Yuma media, ADEQ's Southern Regional Office Community Liaison for Yuma, the Department of Agriculture to distribute to farmers, Yuma Proving Ground and the Marine Corps Air Station, Public Works Departments, and other potential sources of PM10 so that dust-generating activities can be rescheduled, minimizing PM10 emissions during predicted events.

TABLE 17
MOTOR VEHICLE EMISSIONS BUDGET COMPARISONS

Budget Year	PM_{10} Tons per Year	Maintenance Plan Budget	Annual Reduction	Amount Under Budget
2011	8538	10,803	370	2635
2016	9839	10,803	370	1334
2026	10567	10803	370	606
2033	10881	10803	370	292

VII. PROJECTS IN THE TRANSPORTATION PLAN AND PROGRAM

A. PROJECTS EXEMPT FROM REGIONAL EMISSION ANALYSIS

1. There are no projects in the transportation plan or program that requires mitigation to determine conformity.

2. 40 CFR § 93.126 Exempt Projects. The YMPO's Plan and Program include the following exempt projects by category: Safety Improvements; Traffic Control Devices; Pavement Preservation; Sweeping Paved Surfaces; Watering Canal Maintenance/service Roads; Lighting Improvements; Purchase of Federal Transit Administration (FTA) Section 5310 paratransit vans, Section 5307 public transportation vehicles; Bicycle and Pedestrian Facilities; and Planning, Engineering, and Environmental studies.

3. All projects in the YMPO area are from a conforming Plan and conforming Program, as determined by YMPO on December 2, 2010.

4. There are no projects where there are PM_{10} construction impacts and, at the same time, where the Yuma PM_{10} SIP also identifies construction-related fugitive PM_{10} as a contributor to the non-attainment.

C. CONFORMITY FINDINGS

This Air Quality Analysis Report confirms conformity between the YMPO'S latest transportation plans and programs and ADEQ's State Implementation Plan (SIP), specifically the *Yuma PM10 Maintenance Plan (August 2006)* and EPA's adequacy finding for the MVEB in the SIP.

The analyses in this report show that during the course of the five-year 2011-2016 Transportation Improvement Program, there will be an expected 15.3% increase in vehicle PM_{10} emissions; during the same period, VMT is expected to increase a greater 29.4%.

Implementation of the 2011-2016 TIP and 2010-2033 RTP will increase PM_{10} emissions by 22.8% thru 2011, while the expected Vehicle Miles of Travel (VMT) during this same period are expected to increase 24.5%. The ADEQ *Yuma PM_{10} Maintenance Plan (August 2006)* has approved an annual emissions budget thru 2016 for the YMPO Region of 10,803 tons per year, while the modeled emissions total for 2011 is 8,538 tons per year. The modeled PM10 emissions for 2033 with its annual reduction are 10,511 TPY, also below the MVEB of 10,803 TPY.

The 2010 Air Quality Analysis Report demonstrates conformity between the 2011-2016 Transportation Improvement Program, the 2010-2033 Regional Transportation Plan, and the State Implementation Plan.

2011 – 2016
Regionally Significant Routes

Figure 4: Resolution No. 118, A Resolution of the YMPO Executive Board Adopting the 2010-2033 Regional Transportation Plan

Figure 5: Resolution No. 119, A Resolution of the YMPO Executive Board Adopting the 2011-2016 Transportation Improvement Program

YUMA METROPOLITAN PLANNING ORGANIZATION

RESOLUTION NO. 118

A RESOLUTION OF THE YUMA METROPOLITAN PLANNING ORGANIZATION ADOPTING THE 2010-2033 REGIONAL TRANSPORTATION PLAN.

Whereas: The Yuma Metropolitan Planning Organization (YMPO) is a multi-agency transportation planning agency formed in 1983 for the purpose of preparing an area-wide transportation plan that provides for mobility and safe travel for citizens, economic growth, and environmental enhancements; and

Whereas: The YMPO adopted its first Regional Transportation Plan on December 8, 1984, its second 1990-2010 Countywide Transportation Plan on May 4, 1989, its third 1995-2015 Countywide Transportation Plan on December 28, 1995, its fourth 2000-2023 Regional Transportation Plan on November 30, 2000, and its fifth Regional Transportation Plan December 11, 2003, and its sixth Regional Transportation Plan February 22, 2007; and

Whereas: The Yuma Region's population, employment opportunities, and demand for mobility have continued to grow; and

Whereas: Federal legislation in the form of SAFETEA-LU requires that metropolitan areas in air quality non-attainment areas update the plan every three years; and

Whereas: This 2010-2033 Regional Transportation Plan was prepared to (1) Serve intensifying land uses and increasing travel demands in the Yuma area; (2) Meet the goals of SAFETEA-LU (August 2005); (3) Be an integral part of the Arizona State Transportation Plan; and (4) Provide mobility options for all citizens;

NOW, THEREFORE, BE IT RESOLVED that Yuma Metropolitan Planning Organization HEREBY ADOPTS the 2010-2033 Regional Transportation Plan as the official transportation plan for the Yuma MPO area; and

BE IT FURTHER RESOLVED that the Yuma Metropolitan Planning Organization recommends that each of the member agencies adopt the portion(s) of the 2010-2033 Regional Transportation Plan applicable to its jurisdiction into its own transportation and/or arterial plan.

ADOPTED AND SIGNED this 25th day of February, 2010.

Kathryn Prochaska

KATHRYN PROCHASKA, Chair
Yuma Metropolitan Planning Organization
Executive Board
Supervisor, Yuma County Board of Supervisors

ATTEST: Charlene FitzGerald

Charlene FitzGerald
YMPO Executive Director

YUMA METROPOLITAN PLANNING ORGANIZATION

RESOLUTION NO. 119

ADOPTING THE 2011-2016 TRANSPORTATION IMPROVEMENT PROGRAM

WHEREAS: The Yuma Metropolitan Planning Organization (YMPO) has the responsibility for conducting the area-wide continuing, comprehensive, and cooperative transportation system planning program and must maintain the regional transportation system plan and short range transportation improvement program on a current basis pursuant to Section 134 of Title 23, and the Urban Mass Transportation Act of 1964, as Amended by the Safe, Accountable, Flexible, and Efficient Transportation Equity Act - A Legacy for Users (SAFETEA-LU); and

WHEREAS: The YMPO's Transportation Improvement Program is a central program management tool for structuring metropolitan transportation programs and reflects the integrated nature of the regional transportation system; and

WHEREAS: The YMPO reviews the roadway, transit, and bicycle/pedestrian improvement programs prepared by the member agencies for correlation as one regional Transportation Improvement Program, and advises the jurisdictions concerned of any conflicts, and prepares, as a coordinated composite of local programs, a regional Transportation Improvement Program for the Yuma region; and

WHEREAS: The YMPO's Technical Advisory Committee and Executive Board, consisting of local and state officials, are involved in a process to annually coordinate the preparation of a regional Transportation Improvement Program; and

WHEREAS: The joint Federal Highway Administration (FHWA)-Federal Transit Administration (FTA) Metropolitan Transportation Planning regulations, call for production of a Transportation Improvement Program including an Annual (or Biennial) Element; and

WHEREAS: The projects in this 2011-2016 Transportation Improvement Program, including its 2011 Annual Element, are consistent with the YMPO 2010-2033 Regional Transportation Plan, adopted May, 2010 and the Transportation Policy Framework of goals, objectives and policies, adopted December 3, 2009; and

WHEREAS: On May 26, 1994 the Yuma Metropolitan Planning Organization adopted a system of Regionally Significant Routes to assist definition of Regionally Significant Projects; and

WHEREAS: The YMPO adopted, and FHWA/FTA approved, in cooperation with the Environmental Protection Agency (EPA), the 2006 Air Quality Conformity Analysis showing conformity between the YMPO 2010-2033 Regional Transportation Plan, 2011-2016 Transportation Improvement Program, and the 2010 PM_{10} Nonattainment Area State Implementation Plan (SIP); and

WHEREAS: The YMPO HEREBY CERTIFIES that the metropolitan transportation planning process is being carried on in conformance with all applicable requirements of 23 U.S.C. 134, and as amended by the Safe, Accountable, Flexible, and Efficient Transportation Equity Act - A Legacy for Users 2005; and the 1990 Clean Air Act Amendments; and

WHEREAS: The YMPO FURTHER CERTIFIES that the Metropolitan Transportation Planning Program is being performed to satisfy the following federal regulations:

1. Statewide/Metropolitan Planning, Final Rule, October 28, 1993
2. Air Quality Conformity, Final Rule, December 21, 1993

Management and Monitoring System Final Rule, December 1, 1993

NOW, THEREFORE, BE IT RESOLVED that the Yuma Metropolitan Planning Organization does HEREBY ADOPT the 2011-2016 Transportation Improvement Program with its 2011 Annual Element composed of project input from the Cities of Yuma, San Luis, and Somerton, Yuma County, the Town of Wellton, the Cocopah Indian Tribe, and the Arizona Department of Transportation.

ADOPTED by the Yuma Metropolitan Planning Organization Executive Board the 29th day of July 2010.

Casey Prochaska
Yuma Metropolitan Planning Organization Executive Board
Chairperson

7/29/2010
Date

Charlene FitzGerald
Executive Director
Yuma Metropolitan Planning Organization

8/3/2010
Date

Figure 7: Resolution No. 120, A Resolution of the YMPO Executive Board Adopting the 2010 Air Quality Conformity Analysis

YUMA METROPOLITAN PLANNING ORGANIZATION

RESOLUTION NO. 120

A Resolution of the YMPO Executive Board Adopting the 2010 Air Quality Conformity Analysis

Whereas: The Yuma Metropolitan Planning Organization (YMPO) is a multi-agency transportation planning agency formed in 1983 for the purpose of preparing an area-wide transportation plan that provides for mobility and safe travel for citizens, economic growth, and environmental enhancements; and

Whereas: The YMPO adopted the YMPO 2010-2033 Regional Transportation Plan on February 25, 2010, and the FY 2011-2016 Transportation Improvement Program on August 3, 2010; and

Whereas: The YMPO has the responsibility to ensure that the transportation plans and programs within the PM_{10} nonattainment area conform to the state and national air quality plans and standards; and

Whereas: This 2010 Air Quality Conformity Analysis reports on the results of the contained analyses of the emissions from vehicles due to increases in miles traveled during the period of the 2011-2016 Transportation Improvement Program; and

Whereas: The 2010 Air Quality Conformity Analysis Report demonstrates "conformity" between the 2011-2016 Transportation Improvement Program, the 2010-2033 Regional Transportation Plan and the State Implementation Plan.

Whereas: The YMPO Board of Directors adopted the 2010 Air Quality Conformity Analysis Report following a public hearing, by motion, at their regular business meeting of December 2, 2010; and

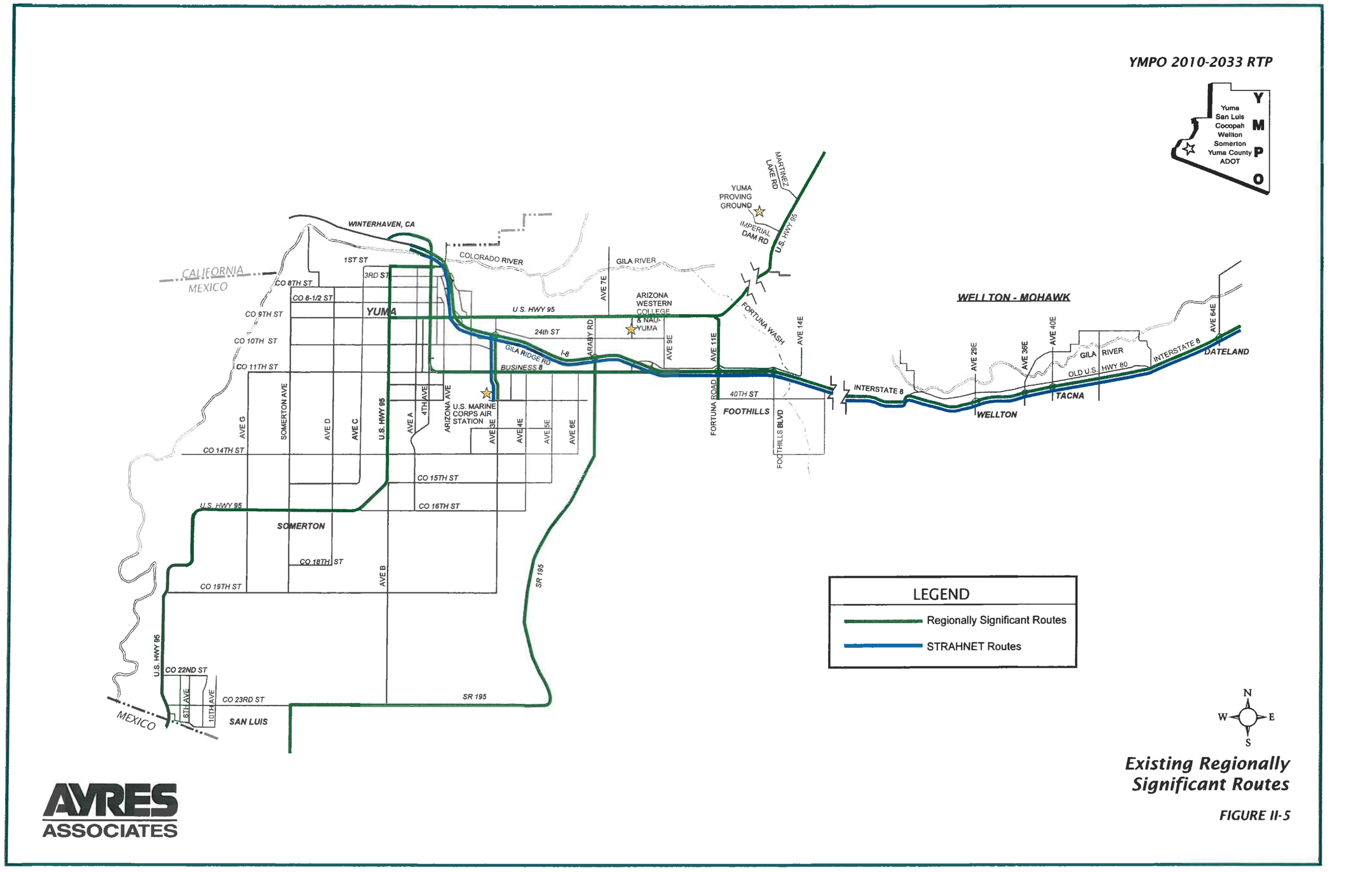
Now, therefore, be it resolved that the YMPO hereby adopts the 2010 Air Quality Conformity Analysis Report.

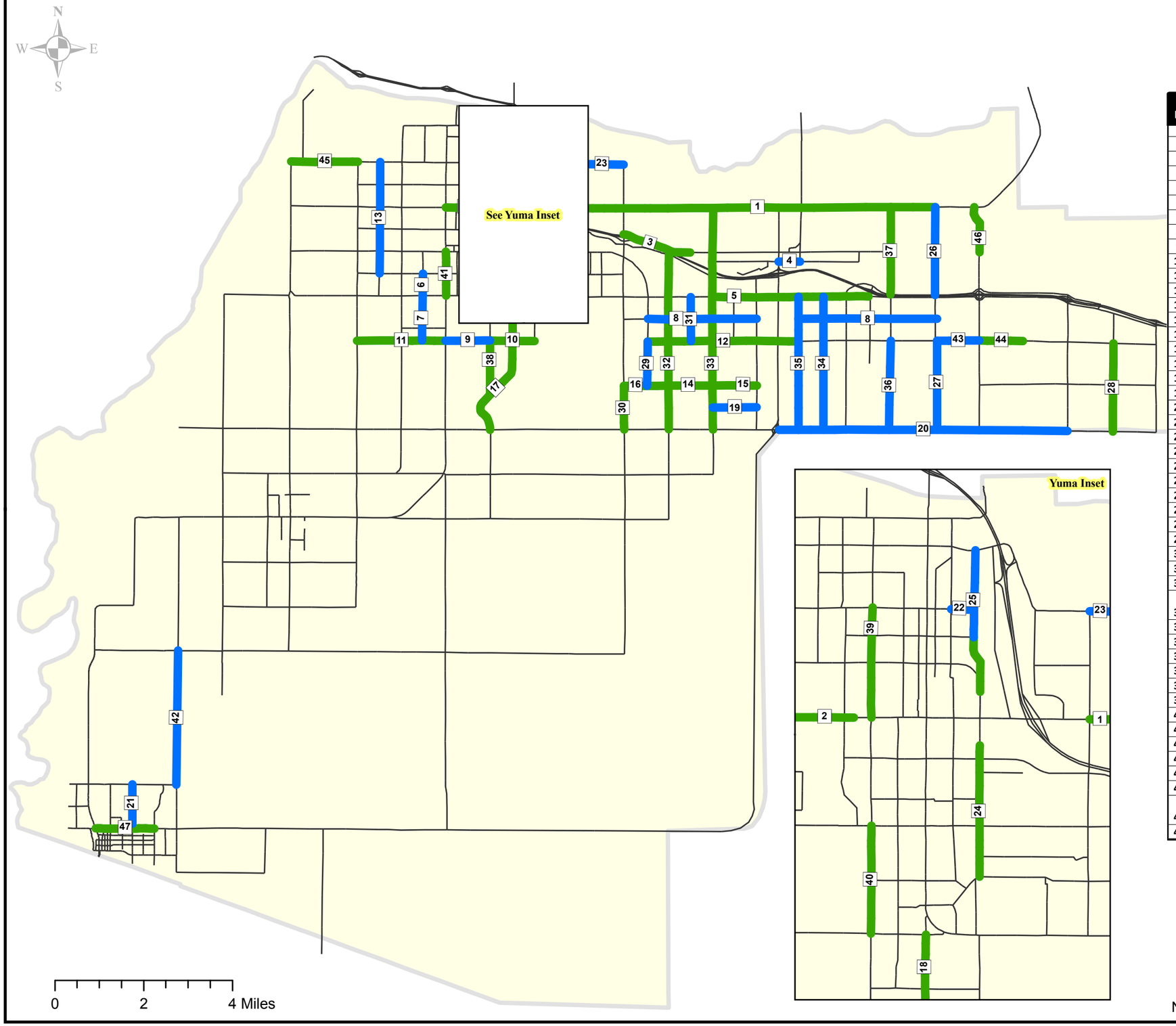
Adopted and signed this 2rd day of December, 2010.

_____

Kathryn Prochaska, Chair
Yuma Metropolitan Planning Organization

Attest: _____
Charlene FitzGerald, Executive Director
Yuma Metropolitan Planning Organization


YMPO 2010-2033 RTP
Yuma
San Luis
Cocopah
Wellton
Somerton
Yuma County
ADOT
YMPO
WINTERHAVEN, CA
CALIFORNIA
MEXICO
COLORADO RIVER
GILA RIVER
1ST ST
3RD ST
CO 8TH ST
CO 8-1/2 ST
CO 9TH ST
CO 10TH ST
CO 11TH ST
YUMA
U.S. HWY 95
24th ST
GILA RIDGE RD
I-8
BUSINESS 8
ARIZONA WESTERN COLLEGE & NAU-YUMA
MARTINEZ LAKE RD
YUMA PROVING GROUND
IMPERIAL DAM RD
FORTUNA WASH
AVE 7E
AVE 9E
AVE 11E
AVE 14E
ARABY RD
FORTUNA ROAD
40TH ST
FOOTHILLS
FOOTHILLS BLVD
INTERSTATE 8
WELLTON - MOHAWK
AVE 29E
AVE 36E
AVE 40E
AVE 64E
GILA RIVER
OLD U.S. HWY 80
TACNA
WELLTON
DATELAND
SOMERTON AVE
AVE G
AVE D
AVE C
AVE A
4TH AVE
ARIZONA AVE
U.S. MARINE CORPS AIR STATION
AVE 3E
AVE 4E
AVE 5E
AVE 6E
CO 14TH ST
CO 15TH ST
CO 16TH ST
CO 18TH ST
CO 19TH ST
SOMERTON
AVE B
SR 195
U.S. HWY 95
CO 22ND ST
CO 23RD ST
6TH AVE
10TH AVE
SAN LUIS
MEXICO
LEGEND
Regionally Significant Routes
STRAHNET Routes
N
W
E
S
Existing Regionally Significant Routes
FIGURE II-5
AYRES ASSOCIATES



ID	Project	Location	Length (Miles)	New Lanes
1	16th St Expwy	Ave 2E to Ave 10E	8	6
2	16th St Widening	Ave B to 13th Ave	0.75	6
3	24th St Widening	Ave 3E to Ave 4 1/2E	1.5	4
4	26th St (new)	Araby Rd to Ave 7E	0.5	4
5	32nd St Expwy	Ave 5E to Ave 8 1/2E	3.5	6
6	33rd Drive (Ave. B½)	28th St to 32nd St	0.5	4
7	33rd Drive (Ave. B½)	32nd St to 40th St	1	4
8	36th St Widening	Ave 3 1/2 E to Ave 6E & Ave 7E to	5.5	4
9	40th St Widening	Ave A to Ave B	1	4
10	40th St Widening	Arizona to Ave A	1	4
11	40th St Widening	Ave B to Ave D	2	4
12	40th St/Co 12th St Widening	Ave 3 1/2E to Ave 7E	3.5	6
13	45th Ave Widening	5th St to 28th St	2.75	4
14	48th St	Ave 3 1/2E to Ave 5 1/2E	2	4
15	48th St	Ave 5 1/2E to Ave 6E	0.5	4
16	48th St Widening	Ave 3E to Ave 3 1/2E	0.5	4
17	4th Ave	40th St to Co 14th St	2	4
18	4th Ave Widening	32nd St to 40th St	1	4
19	52nd St Widening	Ave 5E to Ave 6E	1	4
20	56th St	ASH(SR 195) to Ave 13E	6.5	4
21	6th Ave	Union St to Co 22nd St	0.75	2
22	8th St	1st Ave to Arizona Ave	0.25	4
23	8th St (new)	Ave 2E to Ave 3E	1	2
24	Arizona Ave Widening	16th St to Palo Verde	1.5	4
25	Arizona Ave Widening	16th St to Giss Pkwy	1.5	4
26	Ave 10E	16th St to North Frontage Rd	1	4
27	Ave 10E	40th St to 56th St	2	4
28	Ave 14E (new)	Co 12th St to Co 14th St	2	2
29	Ave 3½E	40th St to 48th St	1	6
30	Ave 3E Widening	48th St to Co. 14th St	1	4
31	Ave 4 1/2E Widening	32nd St to 44th St	1.5	4
32	Ave 4E Widening	Gila Ridge Rd to Yuma Expwy	4	4
33	Ave 5E Widening (Grade Separation @ I-8)	16th St to Yuma Expwy (56th St)	5	4
34	Ave 7 1/2E Widening	32nd St to 56th St	3	4
35	Ave 7E Widening	32nd St Expwy to 56th St	3	4
36	Ave 9E (new)	32nd St to Co 14th St	3	2
37	Ave 9E Widening	16th St to N Frontage Rd	2	4
38	Ave A	40th St to Airport Loop	1.25	4
39	Ave A Widening	8th St to 16th St	1	4
40	Ave A Widening	24th St to 32nd St	1	4
41	Ave B Widening	24th St to 32nd St	1	6
42	Ave H	Co 19th St to Co 22nd St	3	2
43	Co 12th St (new)	Ave 10E to Fortuna Rd	1	4
44	Co 12th St Widening	Ave 11E to Ave 12E	1	4
45	Co 8th St Widening	Ave D to Somerton Ave	1.5	4
46	Fortuna Rd Widening (With RR grade separation)	U.S. 95 to Co 10th St	1	4
47	Juan Sanchez Blvd Widening	U.S. 95 to 10th Ave	1.75	4

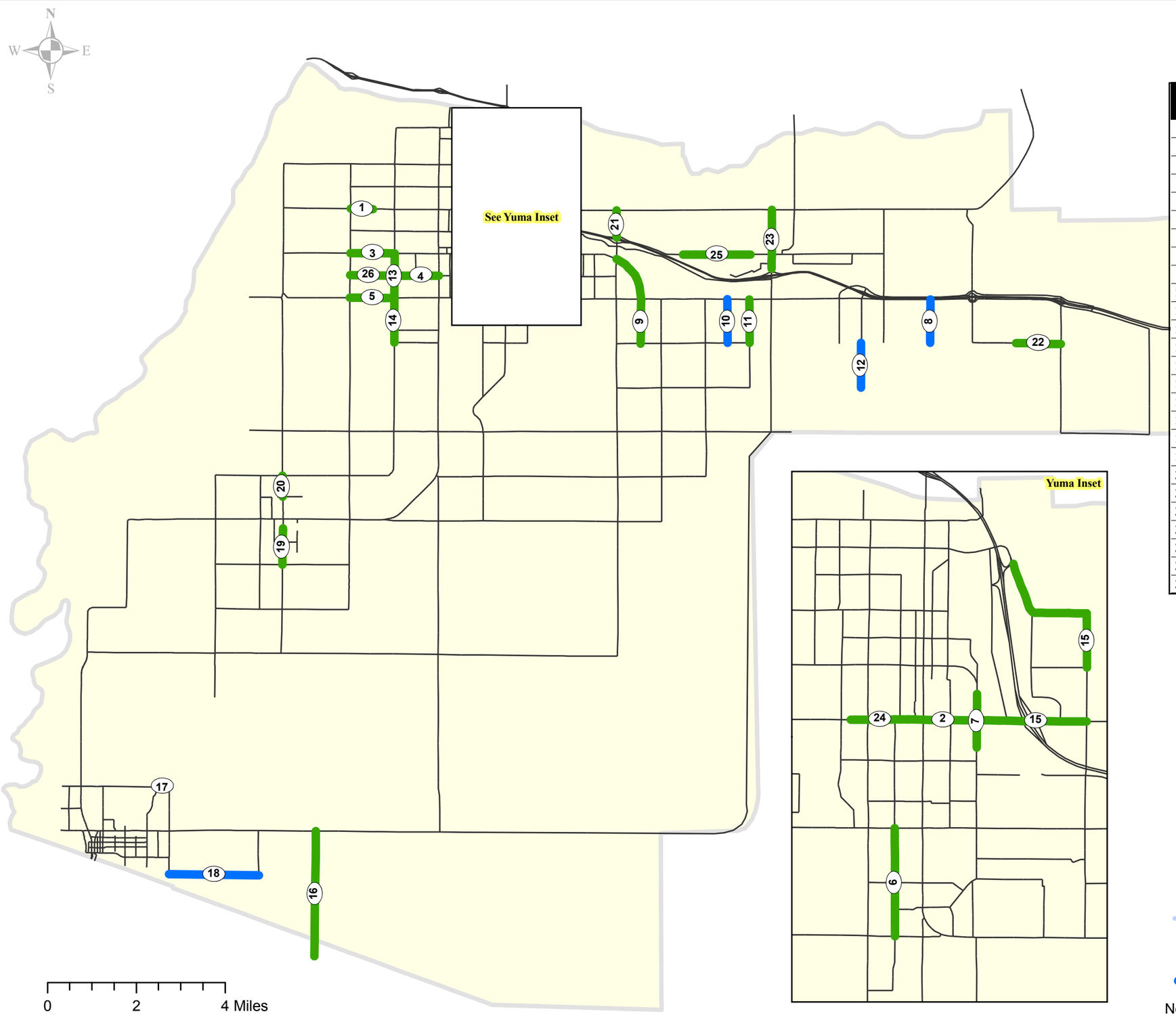
YMPO 2017 - 2026 Roadway Improvements

2026 Roadway Network

Widening

New Road Segments

Note: The improvements time frame is reflective of FWHA's Fiscal Year



ID	Project	Location	Length (Miles)	New Lanes
1	16th St Widening	45th Ave to Ave D	0.5	4
2	16th St Widening	6th Ave to Arizona Ave	0.63	6
3	24th St Widening	Ave C to Ave D	1	6
4	28th St *(WIDENING)*	Ave B to Ave C	1	4
5	32nd St Widening	Ave C to Ave D	1	6
6	8th Ave Widening	24th St to 32nd St	1	4
7	Arizona Ave Widening	16th St Intersection	0.25	4
8	Ave 10E	32nd St to 40th St	1	4
9	Ave 3½E	Ave 3E & 24th St to 40th St	2.3	6
10	Ave 5½E Widening	32nd St to 40th St	1	4
11	Ave 6E Widening	32nd St to 40th St	1	4
12	Ave 8 1/2E Widening	40th St to 48th St	1.5	4
13	Ave C Widening	24th St to 32nd St	1	4
14	Ave C Widening	32nd St to 40th St	1	4
15	Giss Pkwy Extension	I-8 to Pacific Ave to 16th St	2	4
16	Ave E Widening	POE to SR 195	2.5	4
17	Co 22nd St	9th Ave to10th Ave	0.25	2
18	Co 24th St	10th Ave to Ave F	2	2
19	Somerton Ave Widening	Fern to Co 17th St	0.75	4
20	Somerton Ave Widening	Jefferson to Co 15th St	0.5	4
21	Ave 3E Widening	U.S. 95 to I-8	0.4	4
22	Co 12th St Widening	Ave 12E to Ave 13E	1	4
23	SR 195	I-8 to U.S. 95	1.5	4
24	16th St Widening	6th Ave to 13th Ave	0.6	6
25	24th St Widening	Ave 4 1/2E to Ave 6E	1.5	4
26	28th St Widening	Ave C to Ave D	1	4

YMPO 2011 - 2016 Roadway Improvements

2016 Roadway Network

Widening

New Road Segments

Note: The improvements time frame is reflective of FWHA's Fiscal Year