

2004 Planning Certification Review



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TABLE OF CONTENTS

SECTION ONE: MPO PRODUCTS

WORK PROGRAM	1
REGIONAL TRANSPORTATION PLAN (RTP).....	9
FEDERAL TRANSPORTATION IMPROVEMENT PROGRAM (FTIP).....	21

SECTION TWO: MPO ACTIVITIES

CONFORMITY ANALYSIS/AIR QUALITY PLANNING	29
GOODS MOVEMENT PLANNING/COORDINATION	35
ENVIRONMENTAL JUSTICE/TITLE VI.....	41
PLANNING FOR IMPROVING TRANSPORTATION SYSTEM SAFETY	47
PUBLIC OUTREACH AND INVOLVEMENT.....	51
COORDINATION WITH INDIAN TRIBAL GOVERNMENTS.....	57
TRANSPORTATION SYSTEMS ANALYSIS AND MONITORING, INCLUDING CONGESTION MANAGEMENT SYSTEM.....	59
INVOLVEMENT/INTERACTION WITH POLICY BOARD.....	63
COORDINATION/PLANNING FOR INTELLIGENT TRANSPORTATION SYSTEMS (ITS)	67
REGIONAL COORDINATION	69
SUBREGIONAL/SUB-AREA OR FACILITY PLANNING STUDIES.....	71

SECTION THREE: ADMINISTRATIVE/ORGANIZATIONAL ISSUES

MPO POLICY BOARD STRUCTURE.....	85
BOUNDARIES.....	87
AGREEMENTS.....	89
APPENDIX A.....	95
APPENDIX B	109

SECTION ONE: MPO PRODUCTS

WORK PROGRAM

The work program guides the activities of MPO staff and allocates the financial resources of the MPO for the fiscal year.

The MAG Unified Planning Work Program (UPWP) and Annual Budget represents a complete guide to the activities of the agency for the coming year, indicating responsibility of work, completion schedules and products. The UPWP is adopted by the MAG Regional Council and lists in detail all fund expenditures and funding sources. The key role of MAG is to provide a forum for regional policy development, and the activities outlined in the UPWP supports this goal.

The UPWP is developed in a collaborative process with federal, state and local agencies and input is sought from the public on the key issues facing the region.

Question: Identify how the work program and the process to develop the work program addresses the elements listed below.

Requirements/Expectations: The Work Program must:

- a) **Be inclusive in its development, including input from the public, MPO member agencies and local governments, other transportation agencies in the region, including local transit agencies, and the State.**

Planning for the Work Program is a continuous process. In developing the UPWP, MAG is inclusive in its development by including input from the public, MPO member agencies and local governments, and other transportation agencies in the region, which includes local transit agencies and the State.

One important part of the process in developing the Work Program is the MAG transportation public involvement program. Public involvement provides the public an early opportunity to provide input into the MAG planning process and to identify the public's funding priorities. The public involvement process is divided into four phases: early input, mid-phase, final phase and continuous involvement. The early input meetings ensure early involvement of the public in the development of regional plans and programs. The mid-phase process provides for input on initial plan analysis for the Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP) and includes a public hearing on regional transportation issues. The final phase provides an opportunity for final comment on the RTP, TIP and Air Quality Conformity Analysis. The results of the input process are published in a series of three annual reports: Early Phase Input Opportunity Report; Mid-Phase Input Opportunity Report; and, Final Phase Input Opportunity Report. These reports are presented to the MAG Management Committee, the Transportation Policy Committee and the Regional Council each year.

In addition, continuous outreach in the public involvement process is conducted through activities such as presentations to community and civic groups, distributing press releases and newsletters, and coordinating with the Citizens Transportation Oversight Committee (CTOC). Various forums for input are used during the input process including public workshops, presentations and survey instruments to provide citizens an opportunity to discuss projects for the region given the limited resources.

As part of the public input process, a Regional Transportation Stakeholders meeting is conducted to share transportation ideas. The Arizona Department of Transportation provides an overview of potential projects.

The Regional Public Transportation Authority (RPTA) also presents information at the meeting. In addition to construction projects, ideas for future studies may be presented. Stakeholders are provided an opportunity to react to these ideas and an opportunity to provide their ideas.

Many of MAG's committees include representation from the RPTA and ADOT, such as the MAG Transportation Review Committee. Representatives from MAG, ADOT and the RPTA confer on the projects using ADOT federal funds in the TIP. This cooperatively developed listing of projects is presented to the MAG Transportation Review Committee for consideration.

Another important step in developing the Work Program is input received at the annual retreats for the Management Committee and/or the Regional Council. These retreats provide the policy makers of MAG an opportunity to discuss the challenges facing the region and potential strategies for addressing these challenges. These ideas are incorporated into the Work Program as the goals for the Program.

The development of the Work Program begins with a kick-off meeting in December when MAG Managers and Program Managers discuss program priorities, review the proposed timeline, and information from the stakeholders meeting, retreats, public input, and committee meetings. Following this general staff discussion, the development of the Work Program begins. The development of the budget document is an incremental process where information on the budget, including financial resources, format and program ideas is shared in a series of public meetings and a public budget workshop. This continuous review of the development of the budget begins in January and ends with the approval of the budget by the Regional Council in May.

In January, the Program Managers begin developing their sections of the Work Program. To ensure that all planning activities proposed by ADOT and the RPTA are included in the Work Program, a letter is sent to the RPTA Executive Director and the ADOT Transportation Director for Planning, requesting their input into the Work Program. This information is then incorporated into the new Work Program by the Program Managers. The responsibilities for the Work Program are discussed in meetings with the Managers and Program Managers throughout the budget development process. The MAG Executive Director working with the staff develops the Work Program for early review by the Regional Council Executive Committee, Management Committee and Regional Council.

In the spring, the draft budget is provided to the State and Federal agencies for review in anticipation of the Intermodal Planning Group meeting where questions and comments are heard and, if necessary, adjustments are made regarding the State and Federal agency comments. The final budget is presented to the Regional Council in May and, upon approval, is sent in June to the Arizona Department of Transportation and the FHWA.

The Federal Emphasis Areas are received each year by MAG. These areas are highlighted in the Work Program and information provided on how MAG proposes to respond to these emphasis areas. The guidance from the federal agencies has helped to guide program development.

- b) Be consistent with the mission of the MPO, with candidate tasks prioritized and selected to achieve the core mission of the MPO and to produce the required products as identified in federal transportation legislation and USDOT planning emphasis areas. These include efforts to comply with the requirements of Title VI and the Executive Order on Environmental Justice.**

The primary role of MAG is to provide a forum for regional policy development and problem solving. The policy development process begins with the ideas and concepts formulated by the MAG member agencies, committees, citizens and staff. These ideas and concepts are integrated and adopted and established as region-wide goals, objectives and policies to guide regional planning. The policies adopted by MAG provide overall direction for the region while permitting each member agency to develop its unique characteristics in accordance with the preferences of its citizens. This process also includes consideration of the transportation law and rules and regulations, USDOT planning emphasis areas and efforts that are made to ensure that they comply with the requirements of Title VI and the Executive Order on Environmental Justice.

The UPWP is developed in a collaborative process with federal, state and local agencies. The Federal Emphasis Areas are received each year by MAG. These areas are highlighted in the Work Program and information provided on how MAG proposes to respond to these emphasis areas. This guidance from the federal agencies has helped to guide program development. In particular, the finding by the Federal Highway Administration and the Federal Transit Administration resulting from the MAG Certification Review in 1998 was critical in assisting ADOT and MAG in developing a cooperatively developed funding estimate for the region. This cooperative process led to the Casa Grande Resolves, which brought major changes to the statewide planning and programming process.

Title VI of the Civil Rights Act of 1964 and related statutes set forth that individuals are not excluded from participating in, denied the benefit of, or subjected to discrimination under any program or activity receiving federal funding on the basis of race, color, national origin, age, sex, or Disability Executive Order 12898 on Environmental Justice further directs that federal programs, policies, and activities not have a disproportionately high and adverse human health and environmental effect on minority and low-income populations.

MAG uses a variety of methods to determine the needs, values and issues of Title VI and Environmental Justice populations, such as the many studies and surveys by MAG. MAG has a comprehensive Human Services Planning Program that uses a formal process to identify and prioritize the needs of low-income and minority populations. The MAG Annual Human Services Plan lays out in detail these identified needs as well as the plan to address these needs. The Human Services Division works very closely with local Community Action Programs and senior centers throughout the region to help identify these needs.

MAG has also implemented the Community Outreach Associate program to help identify the needs of minority populations and solicit input on MAG transportation plans and programs. A Spanish hotline has been established to receive input and answer questions from Spanish-speaking individuals.

As a part of the scope of work in its corridor and subarea planning studies, MAG includes a work task to address Title VI of the Civil Rights Act of 1964 as Amended and the Federal Highway Administration Notice of September 2, 1992 (N 4720.6), which require that all projects and studies produced by recipients of federal funds ensure nondiscrimination, whether those programs and activities are federally funded or not. As part of this task, potential Title VI and environmental justice issues must be identified and assessed, taking all applicable federal requirements into account. In addition, the Regional Transportation Plan addresses the manner in which the benefits and burdens of the regional transportation system are distributed across different racial/ethnic and economic groups on a regional basis.

c) Be based on sound financial analysis and fiscal planning principles.

The Unified Planning Work Program and Annual Budget is based on sound financial analysis and fiscal planning principles in meeting the requirements of 23 CFR part 420, Subpart A. This prescribes the Federal Highway Administration (FHWA) policies and procedures for the administration of activities undertaken by State departments of transportation (State DOTs) and their subrecipients, including metropolitan planning organizations (MPOs), with FHWA planning and research funds. Subpart A identifies the administrative requirements that apply to the use of FHWA planning and research funds for planning.

The requirements in this part supplement those in 49 CFR part 18, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments. This requirement says that the State must expense and account for grant funds in accordance with State laws and procedures for expending and accounting for its own funds. Fiscal control and accounting procedures of the State, as well as its sub-grantees and cost-type contractors, must be sufficient to permit preparation of reports, permit the tracing of funds to a sufficient level of expenditures, meet the standards regarding financial reporting, accounting records, internal control, budget control, allowable costs, source documentation, and cash management. Part 18 also describes the matching costs principles that are required.

MAG has a Single Audit each year which includes an independent financial audit and an audit on the compliance of MAG with the requirements in the U.S. Office of Management and Budget Circular A-133. Examples of compliance requirements met in this audit include meeting the requirements in the applicable Code of Federal Regulations such as activities allowed or unallowed; allowable costs/cost principles; cash management; eligibility; matching, level of effort, earmarking; and, reporting. There have been no audit findings for MAG in either the financial audit or the Single Audit for federal compliance in the last three years.

MAG submits both the Comprehensive Annual Financial Report (CAFR) and the Unified Planning Work Program and Annual Budget (UPWP) to the Government Finance Officers Association (GFOA) for review and rating each year. The CAFR is reviewed for achievement of standards in both governmental accounting and financial reporting. The UPWP review criteria consists of consideration of the budget document in meeting policy, operational, financial and communications standards. MAG has received the GFOA CAFR award and the GFOA Distinguished Budget Award for each of the previous five years.

d) Include funded major transportation planning studies in the region, regardless of funding source or the agency conducting the study.

The MAG Work Program includes the funded major transportation planning studies in the region, regardless of funding source or the agency conducting the study. The MAG major transportation planning studies are described in the Transportation Division section of the Work Program.

As described earlier, to ensure that all major transportation planning activities proposed by ADOT and the RPTA are included in the Work Program, a letter is sent to the RPTA Executive Director and the ADOT Transportation Director for Planning each year requesting their input into the Work Program. This information on the major transportation projects in the region outside of MAG are included in the Work Program Appendix in the Total Regional Planning Funds section.

e) Be adopted and transmitted to State and Federal agencies to allow for review and approval by July 1, so that MPO activities to continue uninterrupted.

In order to present the information timely for review and comments, as stated earlier, the Work Program is presented to the Regional Council Executive Committee, Management Committee and Regional Council incrementally throughout its development beginning in January each year. The Arizona Department of Transportation is a member of Regional Council and is provided this incremental budget information throughout its development. In the spring, the draft budget is provided to the State and Federal agencies for review in anticipation of the Intermodal Planning Group meeting where questions and comments are heard and, if necessary, adjustments are made regarding the State and Federal agency comments. The final budget is presented to the Regional Council in May and, upon approval, is sent in June to the Arizona Department of Transportation and the FHWA.

f) Indicate in sufficient detail responsibility for work, completion schedules, and products, and indicate the tasks to which funds provided under Title 23, USC, and the Federal Transit Act.

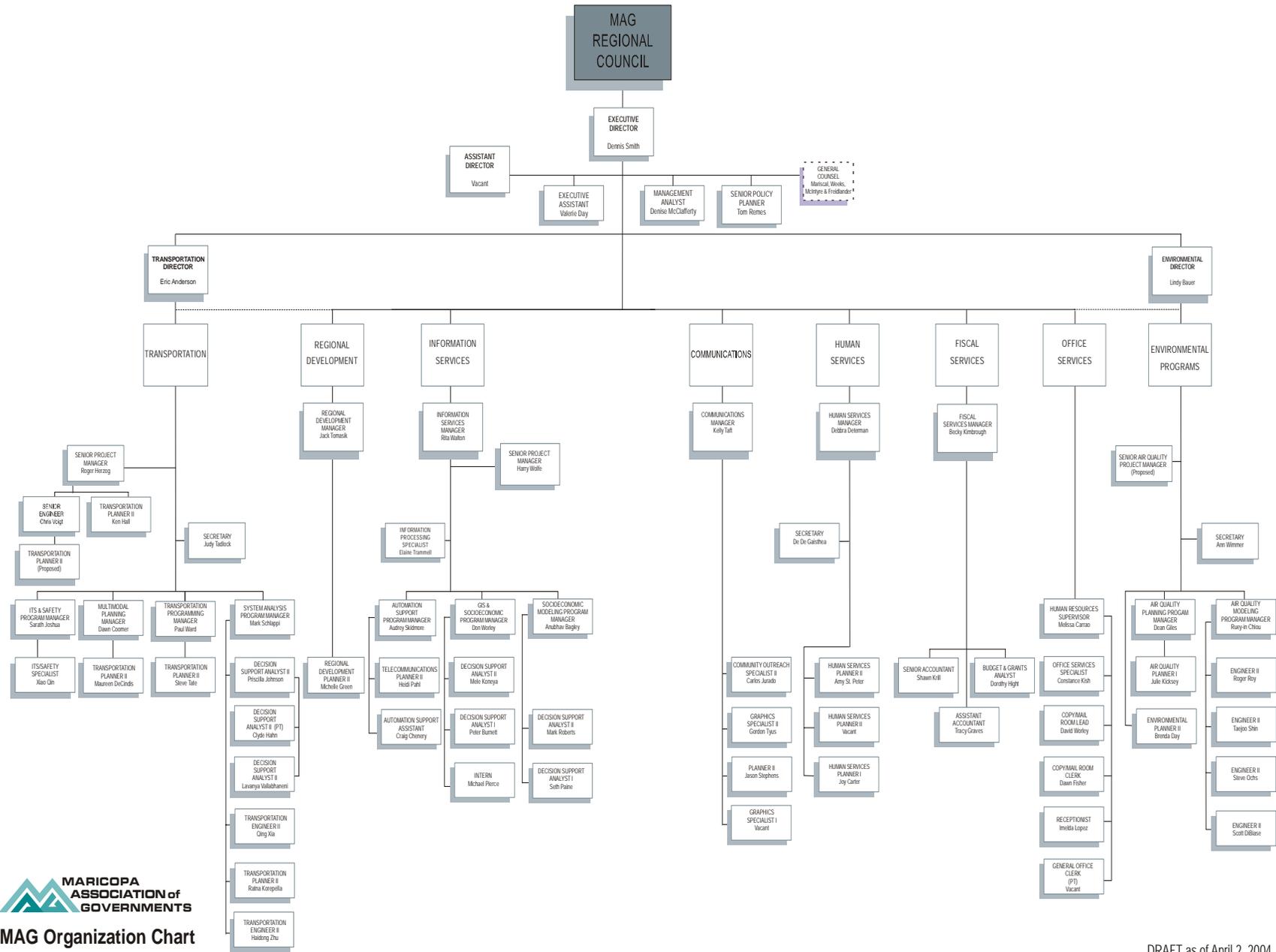
The Work Program provides complete detail for the responsibility of work, completion schedules, and products. And, the Work Program assigns the funds provided under Title 23, USC and the Federal Transit Act to the program for each task of the Work Program.

The Work Program document is divided into sections by division. Within each division there are detailed graphs and narrative by task. Each task has assigned FTE's as well as narrative describing the objective(s), outcome measure(s) and follow-up on the outcome measure(s). These descriptions include estimated completion schedules and product delivery that result from the applicable objective(s) and outcome measure(s). The funds provided under Title 23, USC and the Federal Transit Act are assigned to the task and the funding expense budgeted detail is provided for each task.

g) Include budget information that addresses fund expenditures and funding sources.

The Work Program lists in detail all fund expenditures and funding sources. This information is presented in the Work Program in many ways. A graph of funding by source detailing federal, state, local and other is shown in the Work Program as well as a graph of fund expenditures by program. The four-page financial summary is included in the Work Program and shows funding source detail for all of the funding sources including sources within the Federal Highway Administration (FHWA), Federal Transit Administration (FTA) planning funds, a detailed breakdown of state funding, and of local funding. Funding sources and fund expenditures are listed at the end of each division narrative depicting the detailed funding source and associated expenditure showing funding source for the division by FHWA funding source, FTA, state and local. And, fund expenditures are shown by division, and then again by labor, fringe, overhead, consultant and pass-through. A detailed graph of comprehensive division funding sources and fund expenditures are again listed in the Work Program Appendix in the Program Allocations and Funding Sources section.

Provide the following document(s): Current MPO organization chart.



REGIONAL TRANSPORTATION PLAN (RTP)

The RTP establishes the long-term transportation investment, service, and policy agenda for the region. It also seeks to link land use and transportation planning in the region and address planning factors outlined in TEA-21, as well as USDOT planning emphasis areas.

A new Regional Transportation Plan (RTP) was adopted by the MAG Regional Council on November 25, 2003. This action was the culmination of a three-year, comprehensive planning effort to develop a new RTP for the MAG area. The RTP is a comprehensive, performance based, multi-modal and coordinated regional plan, covering the period through Fiscal Year (FY) 2026. The RTP replaces the MAG Long Range Transportation Plan and provides a blueprint for future transportation investments in the region for the next several decades.

Federal transportation statutes and regulations address regional transportation planning, and establish a framework for approaching the planning process and determining the contents of the RTP. The RTP, as well as the planning process through which it was developed, has been structured to meet these requirements. On December 9, 2003, the RTP was found to meet air quality conformity requirements by the U.S. Department of Transportation in coordination with the U.S. Environmental Protection Agency.

Question: Identify how the RTP and the process to develop the RTP addresses the elements listed below.

Requirements/Expectations: The RTP must:

- a) **Be supported by a comprehensive and inclusive public involvement effort that complies with Title VI and the Executive Order on Environmental Justice.**

The RTP process is supported by an extensive public outreach and involvement program that complies with Title VI and Environmental Justice. MAG's Public Involvement Process was adopted in 1994, and enhanced in 1998 with greater input from Title VI and Environmental Justice communities. MAG's adopted policy for public involvement identifies opportunities for public input early in the process, during the planning process, and prior to final hearings. The process provides complete information on transportation plans, timely public notice, full public access to key decisions, and opportunities for early and continuing involvement in the process for all segments of the region's population, including Title VI and environmental justice communities.

For the RTP process, a public involvement plan was prepared and followed closely. Meetings and events were held to accommodate citizens throughout the region. Outreach efforts were particularly directed at Title VI communities. All of the public events were scheduled in venues that were transit accessible and complied with the provisions of the Americans with Disabilities Act. In addition, Spanish language materials, sign language interpretation, alternate materials, and FM/Infrared Listening Devices were available upon request.

During these public outreach activities, public comments on transportation issues were solicited from participants. Feedback provided at these meetings and events was considered by the Transportation Policy Committee (TPC) in the development of the RTP.

During the development of the RTP, three scientific telephone polls were conducted to collect information about citizen priorities and transportation issues. The first poll was performed in December 2001/January 2002 and included five focus groups, as well as 626 fifteen-minute telephone surveys. In December 2002, a second poll of 1,009 Maricopa County voters was conducted to obtain information about transportation issues and concerns. In August of 2003, a third poll of 600 Maricopa County voters was completed to test elements of the draft RTP and determine levels of support for transportation funding. The TPC and Regional Council received detailed briefings on the polling results.

Another major public participation activity involved the MAG Regional Town Hall. On March 28, 2003, MAG conducted its first annual Regional Town Hall to address transportation issues and priorities. Approximately 150 people registered for the event and discussed the key transportation issues facing the region. This included identifying the successes and challenges of today's regional transportation system, and developing a prioritized list of solutions for the future. The results of this process were reported in detail to the TPC and the Regional Council.

b) Cover at least a 20-year planning period, and identify projected transportation demand for persons and goods movement in the metropolitan planning area over the period of the plan.

The MAG Regional Transportation Plan (RTP) is a comprehensive, performance based, multi-modal and coordinated regional plan, covering the period from FY 2005 through Fiscal Year (FY) 2026. Work to prepare the RTP began in December of 2000, representing the most extensive transportation plan update by MAG since the mid-1980s. As part of the development of the RTP, extensive travel demand modeling was conducted. This included passenger modes such as auto and transit, as well as freight modes such as trucks.

The planning process established goals, objectives and performance measures; extensively evaluated the long-range population trends of the region; analyzed economic and land use development patterns; analyzed the current condition of the regional transportation system; assessed transportation needs over the next twenty years; and identified transportation investments that will best meet the present and future needs of the region. An extensive public involvement and outreach program was pursued throughout the planning effort.

The RTP covers a full range of transportation modes and transportation system needs over the planning period. This includes highways and freeways, mass transit, the regional arterial street network and airports. These facilities represent the core regional network that carries people and goods into, out of and within the MAG area. In addition, the RTP addresses other key transportation elements, including bicycle and pedestrian facilities, regional freight infrastructure, demand management measures, system management programs, special needs transportation and safety.

As part of the planning process, the projected demand for travel during the 20-year planning period on all the key transportation modes was developed using MAG's travel demand forecasting model. This is a state-of-the-art computer model that produces forecasts for auto travel by auto-occupancy level, truck travel by vehicle class, and mass transit passenger travel by sub-mode (bus and fixed-guideway). These projections were based on adopted population and employment forecasts, covered interim years as well as the full planning horizon, and were compiled for facility, sub-regional and regional levels. The transportation demand modeling process was used not only to develop information on vehicle and passenger travel, but also provided key data on other factors such as mode split, mobility factors and accessibility levels.

- c) **Be based on transportation system analysis and monitoring of system conditions, and identify capital investments, congestion management strategies, and other measures to preserve the existing transportation system and efficiently use existing transportation capacity to relieve congestion and move people and goods.**

The RTP process employed extensive system-level analysis based on monitoring of existing conditions. For example, a freeway bottleneck study was conducted to evaluate existing freeway conditions and identify measures to reduce congestion. Using these types of analyses, the RTP was structured to include both capital investments and management strategies to enhance and efficiently use the existing transportation system.

The Regional Transportation Plan (RTP) was developed through an extensive transportation system analysis process, making use of performance measures that took into account both current and projected system conditions. These performance measures were used to provide information regarding the tradeoffs of applying different solutions to addressing future travel demand. Values for the transportation performance measures were estimated using the MAG regional transportation demand modeling system. The MAG model was applied to a base network and to the Plan utilizing population, employment, and land use projections for the planning period.

A total of 19 performance measures were identified and used in the analysis of proposed projects to be included in the RTP and to assess how different transportation system options performed with respect to the adopted objectives. The performance measures will also serve as the basis to monitor how the transportation system performs as the RTP is implemented.

The effective use and preservation of the existing system were key considerations in the development of the RTP. Two of the major objectives of the planning process addressed this issue as follows: 1) Objective 1A - Provide for the continuing preservation and maintenance needs of transportation facilities and services in the region, eliminating maintenance backlogs, and 2) Objective 2A: Maintain an acceptable and reliable level of service on transportation and mobility systems serving the region, taking into account performance by mode and facility type.

The RTP identifies a series of capital investments in the existing freeway/highway, arterial and bus systems, as well as measures to address maintenance and congestion management.

The existing regional freeway/highway network is addressed extensively in the RTP, with funding for widenings and other improvements totaling \$4.4 billion. These improvements include an additional 530 lane-miles of general purpose lanes and 300 lane-miles of HOV lanes, covering essentially the entire existing system, including the loop elements now under construction. A number of bottleneck segments on the freeway system are also addressed in the Plan, with these improvements. Improvements to Grand Avenue and other highways are also funded. In addition to widening, a series of interchanges with arterial streets on existing freeways is included in the Plan. Improvements at freeway-to-freeway interchanges to provide direct connections between HOV lanes have also been included. Together, these improvements total \$396 million.

The RTP also includes \$279 million in funding for maintenance on the freeway system. In addition, a total of \$143 million in funding is provided for freeway management systems (FMS), which help to use existing capacity efficiently and keep traffic flowing as smoothly as possible.

The existing arterial system receives major funding in the RTP, with a total of \$1.5 billion directed at improvements to this vital element of the regional transportation system. This is over and above the approximately 7.0 billion of local and Highway User Revenues Fund (HURF) dollars that are directly available to local governments in the region. The RTP street improvements are aimed at features that will increase traffic flow through the arterial network, such as providing new links to improve the continuity of the regional arterial grid and enable more efficient travel patterns, widening projects that remove bottlenecks and smooth traffic flow along major segments of the system, and intersection improvements that help reduce the delay encountered when motorists pass through these junctions in the network. In addition, \$50 million is identified for improvements identified in the Regional Intelligent Transportation System (ITS) Plan, which help to use existing capacity efficiently.

The existing bus system is enhanced in the RTP to make this mode a more reliable and truly regional element of the transportation system. A total of \$2.3 billion is included in the RTP to provide a regional bus “supergrid” and bus rapid transit (BRT) service throughout the region. This enhanced service will make the transit system more attractive to riders and enable existing roadway facilities to operate more efficiently by increasing the overall vehicle occupancy levels. Regional transit services include both arterial grid and express type services that are designed to provide regional connections. Routes are designed to connect activity centers, transportation nodes, or residential areas across jurisdictional boundaries. The supergrid network addresses a major weakness of the current fixed route bus network. The operational efficiency of the current bus network is hampered by varying service levels across routes and jurisdictions, which is a direct result of the variability of local funding from jurisdiction to jurisdiction. The supergrid addresses this problem by regionally funding key routes at a consistent level of service across all served jurisdictions. Regional funding of this service ensures consistent (and in some cases higher) service levels across jurisdictions that would not be possible if the routes had to depend on varying local funding levels from the served jurisdictions.

In addition to the investments to the transportation system outline above, the RTP also includes congestion management strategies. This includes both demand management and system management measures. The RTP covers a range of transportation demand management (TDM) programs that encourage reductions in travel demand within the transportation system. These programs promote alternative modes of travel, which include carpooling, vanpooling, walking, bicycling, alternative work schedules that reduce trips, and telecommuting and compressed work schedules.

The RTP also addresses transportation system management (TSM) programs that help to accommodate the safe and efficient movement of people and vehicles within the transportation system. The full spectrum of transportation technology applications, known as Intelligent Transportation Systems (ITS), now forms the basis for all of these programs. Specific programs include freeway management systems (FMS), freeway service patrol (FSP) programs, arterial traffic management including interconnected traffic management centers, and traveler information systems. In addition, advanced public transportation systems (APTS) are included in the RTP. APTS is defined as advanced technology based ITS applications in public transportation. These applications are relevant to fixed route bus, paratransit, vanpool, and rail. These technologies can be used to improve passenger convenience, vehicle operations, and mechanical systems.

d) Address the planning factors identified in TEA-21.

The RTP specifically addresses the planning factors identified in TEA-21. Under Federal planning mandates, Section 3004 (a) 3(b) of the Transportation Equity Act for the 21st Century (TEA 21)

specifies that, “The metropolitan transportation planning process for a metropolitan area under this section shall provide for consideration of projects and strategies that will:

Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.

The RTP addresses this issue directly. Two of the major objectives identified for the Plan are as follows: 1) To maintain an acceptable level of service on transportation and mobility systems serving the region, taking into account performance by mode and facility type; and 2) To provide residents of the region with access to jobs, shopping, educational, cultural and recreational opportunities, and to provide employers with reasonable access to the workforce in the region. In developing the RTP, the effectiveness of transportation system performance was analyzed under alternative transportation investment choices. This analysis included factors such as travel times, peak period delay, speeds, and level of service.

Increase the safety and security of the transportation system for motorized and non-motorized users.

Safety is a critical element of each mode of transportation and the RTP specifically addresses safety issues. Safety has been identified as a major focus, with one of the Plan objectives being: provide a safe and secure environment for the traveling public, addressing roadway hazards, pedestrian and bicycle safety, and transit security. The RTP also funds the development of a regional safety plan. In addition, specific safety projects and safety issues are addressed as part of the annual, ongoing transportation planning and programming process. In recognition of the important role of safety in transportation planning. A new Safety Committee was formed by MAG.

Increase the accessibility and mobility options available to people and for freight.

The RTP identifies three objectives related to mobility options, which are as follows: 1) To maintain a reasonable and reliable travel time for moving freight into, through and within the region, as well as provide high-quality access between intercity freight transportation corridors and freight terminal locations, including intermodal facilities for air, rail and truck cargo; 2) Provide the people of the region with transportation modal options necessary to carry out their essential daily activities and support equitable access to the region’s opportunities; 3) Address the needs of the elderly and other population groups that may have special transportation needs, such as non-drivers or those with disabilities. The RTP increases accessibility and mobility options by calling for significant investments in freeways, highways, streets, bus service, high capacity transit facilities, bicycle and pedestrian facilities, and airports. The Plan also provides the planning foundations for freight and special needs transportation. In particular, truck corridors, such as SR85, I-10 and I-17 have significant funding in the RTP to improve the movement of freight in the region.

Protect and enhance the environment, promote energy conservation, and improve quality of life.

Early in the RTP process, the need to sustain the environment was recognized as a major factor. RTP objectives related to this issue include the following: 1) To identify and encourage implementation of mitigation measures that will reduce noise, and visual and traffic impacts of transportation projects on existing neighborhoods; 2) Encourage programs and land use planning that advance efficient trip-making patterns in the region; and 3) Make transportation decisions that are compatible with air quality conformity and water quality standards, the sustainable preservation of key regional ecosystems, and desired lifestyles. In assessing options to be included in the RTP, factors such as transit ridership, access

of household to transit services, and vehicle emissions were analyzed. In addition, air quality issues are extensively addressed in the separate conformity analysis document prepared for the RTP. Reductions in transportation energy use in the region are closely tied to air quality goals.

Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.

One of the major objectives of the RTP is to maintain a reasonable and reliable travel time for moving freight into, through, and within the region; as well as to provide high-quality access between intercity freight transportation corridors and freight terminal locations, including intermodal facilities for air, rail and truck cargo. The broad range of modal improvements in the RTP will facilitate goods movement and system connectivity throughout the region. In addition, a full chapter in the RTP is dedicated to an assessment of the freight infrastructure in the region. This analysis will provide the basis for future freight planning.

Promote efficient system management and operation.

Minimizing congestion and resulting delays is a central theme in all modal elements of the RTP. As one of its objectives, the RTP calls for maintaining an acceptable and reliable level of service on transportation and mobility systems serving the region, taking into account performance by mode and facility type. Chapter Sixteen in the RTP is dedicated to transportation system management, describing Intelligent Transportation Systems (ITS) applications and the Regional ITS Plan. The analysis of traffic congestion is addressed throughout the MAG planning process. The MAG transportation models are used to analyze future traffic congestion. Projects funded from regional sources are rated by an air quality rating system and a congestion management rating system.

Emphasize the preservation of the existing transportation system.

The RTP process recognizes the high importance of maintaining the regional transportation infrastructure. The RTP identifies maintenance as a critical Plan element, with the following objective: To provide for the continuing preservation and maintenance needs of transportation facilities and services in the region, eliminating maintenance backlogs. The high level of importance placed on preservation is reflected by the allocation of regional-level funding in the RTP to the freeway network for aspects of the maintenance function.

- e) **Clearly identify transportation investments and services to identify projects for inclusion in the RTIP, to allow for financial analysis, and to ensure that the public can clearly understand the transportation investments, services, and policies proposed for the region. Also, in air quality non-attainment and maintenance areas, include design concept and scope descriptions of existing and proposed transportation facilities in sufficient detail so that air quality conformity analysis can be performed.**

The Regional Transportation Plan (RTP) specifically identifies projects and service improvements for all modes in the region. This allows projects to be readily defined for inclusion in the Regional Transportation Improvement Program (RTIP), enables a thorough air quality conformity analysis, and provides the public with a clear understanding of the way in which resources are being applied to address transportation needs in the region.

For each mode, both new facilities and services, as well as improvements to existing facilities and services, are mapped to indicate their location and relationship to the rest of the transportation network. This includes the location of new freeway and fixed guideway corridors, along with the location of improvements such as roadway widenings, interchange installations and bus service enhancements. In addition, tables of project limits and other characteristics, including cost estimates, are provided.

Features such as number of lanes for roadways and vehicle purchases for mass transit are identified. Roadway corridors are described individually and the service characteristics of separate mass transit sub-modes are discussed.

The phasing of investments is also clearly described in the RTP, including new corridors and improvements to the existing transportation system. Projects for each mode are grouped into four phases, or time periods based on fiscal years. The four phases are as follows:

- Phase I: FY 2005 through 2010
- Phase II: FY 2011 through 2015
- Phase III: FY 2016 through 2020
- Phase IV: FY 2021 through 2026

The phase specified for a project refers to the period in which funds would be programmed for construction. Maps and tables for phasing are provided in the RTP showing how project funding would be allocated and when elements of each corridor would be constructed. The preparation of phasing schedules considers a number of factors, including: 1) traffic demand and congestion, 2) system continuity, 3) revenue availability, 4) bonding capacity and strategies, 5) cost, 6) project development process, 7) project readiness, 8) concurrent progress on multiple projects.

A fundamental element of the development of the RTP involved modeling of proposed transportation improvements to assess the tradeoffs among different investment strategies. This required identifying projects at a level of detail that allowed them to be specifically included in transportation modeling networks. This level of project detail also allowed a thorough air quality conformity analysis.

f) Include all regionally significant projects, including those from non-federal funding sources.

The Regional Transportation Plan (RTP) identifies all regionally significant projects from both federal and non-federal sources. The regional level funding sources that are addressed in the RTP include: 1) Arizona Department of Transportation (ADOT) 15 percent funds, 2) ADOT discretionary funds, 3) Federal Transit Administration 5307 funds, 4) Federal Transit Administration 5309 funds, 5) Federal Surface Transportation funds (STP), 6) Federal Congestion Mitigation and Air Quality funds (CMAQ), and 7) Extension of the county-wide one-half cent sales tax for transportation.

The application of all federal revenues on regionally significant projects is fully covered in the RTP. In addition, the use of non-federal sources is thoroughly addressed. The extension of the one-half cent sales tax, which is a non-federal source, represents one of the major funding sources for the RTP, providing approximately 54 percent of all regional funding. Regionally significant projects that will draw from this source are addressed in the RTP. In addition, a significant portion of ADOT funding applied to regionally significant projects in the RTP is from the Arizona Highway Users Revenue Fund (HURF), which is non-federal source. Also, local sales tax funding has been applied to regionally significant transit projects, identified in the RTP.

g) Be based on reasonably expected financial resources over the life of the RTP, and include the identification of other funding mechanisms where a shortfall in funding exists.

The RTP process is based on reasonably expected funding over the planning period and considered alternative sources for future funding options. The regional level funding sources that are addressed in the RTP include: 1) Arizona Department of Transportation (ADOT) 15 percent funds, 2) ADOT discretionary funds, 3) Federal Transit Administration 5307 funds, 4) Federal Transit Administration

5309 funds, 5) Federal Surface Transportation funds (STP), 6) Federal Congestion Mitigation and Air Quality funds (CMAQ), and 7) Extension of the county-wide one-half cent sales tax for transportation. These funding sources represent reasonably expected financial resources available over the planning period of the RTP. Revenues from these sources were estimated jointly with the Arizona Department of Transportation and the Regional Public Transportation Authority.

The regional transportation revenues identified above are the focus of the RTP process, since they represent those resources that can be planned and programmed at the regional level. However, there are other revenue sources that play an important role in meeting transportation needs. Examples of these include local revenue contributions, city and county shares of the Arizona Highway User Revenue Fund (HURF), local sales taxes and general funds, and developer financed street construction. The sources and uses of these other funds are also addressed in the RTP.

Future revenues were projected using a conservative approach based on the historical revenue generating capabilities of each source. The RTP is fiscally balanced and the total cost of the Plan matches the level of reasonably expected revenues. However, as part of the regional transportation planning process, a range of alternative funding sources was reviewed. For example, MAG and ADOT conducted a joint study on the potential application of high occupancy toll lanes on the regional freeway system. In addition, future options for increasing the state gasoline tax were discussed extensively during the development of the RTP. Also, federal revenue sources were estimated conservatively, based on existing programs, and may potentially yield higher levels of funding as new federal programs are enacted. These sources represent future options for exploration should funding from expected sources not materialize.

h) Seek to establish links between the regional transportation plans and land use plans within the region to support the goals of the Regional Transportation Plan.

The Regional Transportation Plan (RTP) and the regional transportation planning process are directly linked to land use plans within the region. The RTP was developed using the adopted forecasts of population and employment for the region. These forecasts incorporate the location and density of future development as identified in local land use plans. As a result, the RTP has a direct link to the land use plans covering the transportation planning area. To ensure that the transportation/land use link is fully comprehensive, land use and development patterns in Pinal County were also analyzed and incorporated into the MAG transportation modeling process.

In addition, in Phase I of the RTP planning process, a series of growth scenarios were developed and analyzed to provide insights on their transportation impacts. Four scenarios were prepared, including: 1) base case, 2) suburban/fringe growth emphasis, 3) infill/urban revitalization emphasis, and 4) activity center emphasis. The transportation impacts of the scenarios were identified and compared, providing an assessment of the advantages and disadvantages of various development strategies. Also, the interaction between transportation and land use patterns was evaluated. This analysis was coordinated

closely with local land use planning staffs and the results made available to provide input into future land use planning in the region. Similarly, the findings were utilized in the preparation transportation network alternatives that were developed as part of the RTP process.

Other programs that enhance the links between the RTP and land use plans are also being pursued by MAG. This includes the compilation of information on regionally significant development projects. As part of this effort, MAG member agencies are provided information on the regional transportation costs of significant development projects. This information is available for use by the agencies when they

consider future development projects in their jurisdiction. MAG is also addressing the regional transportation impacts of cumulative development throughout the region.

In addition, MAG is exploring programs aimed at minimizing cross-region travel demand by developing sub-regions that are as self-sufficient as possible, both in terms of their economies and also in terms of a housing mix that is affordable for occupations needed by sub-regional industry clusters, thus minimizing travel distance and commuting time. The purpose of this project is to create planning information that can be used to develop self-sufficient sub-regions in the MAG region, which could be implemented by MAG member agencies. Databases and modeling will be transmitted to MAG member agency economic developers for local strategic planning.

- i) **Be developed and adopted through an interactive process with the MPO policy board, including information and discussion on policy options, transportation needs analysis, alternative transportation investment options and development scenarios, and analysis of reasonably available financial resources and alternative funding options.**

The RTP was developed and adopted through a highly interactive process with MAG policy boards. During the plan development process, the MAG Regional Council received frequent updates regarding the direction of the study process, as well as briefings on findings and conclusions regarding technical and policy issues. This close communication meant that the Regional Council was highly informed regarding the policies and programs covered by the final recommendations of the Transportation Policy Committee (TPC).

In addition, the Regional Council formed the TPC to assist in the development of the RTP and continuing transportation planning efforts. The TPC was structured to include a broad representation of groups and interests throughout the region and was initially charged with developing a plan that addressed the diverse transportation needs in the MAG area. The TPC makes its recommendations to the MAG Regional Council, which adopts the final RTP. Many members of the TPC are also members of the MAG Regional Council, which ensures close communication and interaction between the two groups.

The TPC is a public/private partnership charged with finding solutions to the region's transportation challenges. The Committee has a composition of twenty-three members, including a cross-section of MAG member agencies, community business representatives, and representatives from transit, freight, the Citizens Transportation Oversight Committee and ADOT. One vacancy is currently not filled on the Committee. The TPC was instrumental in the development of the new RTP, which was adopted by the MAG Regional Council on November 25, 2003. It is a permanent committee and will continue to guide the regional transportation planning process through the plan implementation process and future plan updates.

During the development of the new RTP, the TPC met frequently to review findings, guide the analytical process and assess policy issues. The TPC was involved in developing the Plan through a highly interactive process, which included monthly meetings supplemented by workshops devoted to intensive discussions on topics such as funding concepts, network alternatives, system performance analysis and plan phasing priorities. The process that was used in the preparation of the RTP was distinguished by the use of performance-based planning and the application of performance measures in the evaluation of the modeling scenarios. The TPC was fully involved in each step of this process. The methodology included six major components: 1) goals and objectives, 2) needs assessment, 3) evaluation methodologies, 4) alternatives evaluation, 5) plan refinement, and 6) phasing and funding.

The TPC was intimately involved with the development of transportation system modeling scenarios, which were evaluated by using performance measures. The scenarios were structured in a manner as to reflect consistent levels of overall funding, but with different levels of funding by mode across the transportation modes.

The overall analysis of the scenarios provided insights into the tradeoffs associated with different transportation investment strategies, and with the performance of system components. With the results of the evaluations, the TPC defined a hybrid scenario. This scenario was modeled, evaluated and refined further. Based on this analysis, a final hybrid plan scenario was developed and evaluated to provide the basis for a plan for adoption. The final hybrid plan scenario was defined in terms of elements for implementation and phasing, including potential funding mixes. The phasing of these elements considered a range of both quantitative and qualitative factors.

During the development of the RTP, the TPC also reviewed funding options, focusing in on the extension of the current one-half cent sales tax for transportation as the best approach to enhancing funding for the Plan.

Question: Address how fiscal constraint is addressed in the RTP process, including how revenues and costs are identified, how reasonable assumptions for revenue forecasts are developed, and if new revenue sources and innovative finance methods are addressed, and monitoring activities to ensure that fiscal constraint is maintained.

Fiscal constraint and accountability was identified early as a key issue to be addressed in the RTP process. One of the major goals listed for the RTP was “Accountability and Planning: Transportation decisions that result in effective and efficient use of public resources and strong public support”. Objectives under this goal included, but were not limited to: 1) make transportation investment decisions that use public resources effectively and efficiently, using performance-based planning, 2) establish revenue sources and mechanisms that provide consistent funding for regional transportation and mobility needs, 3) develop a regionally balanced plan that provides geographic equity in the distribution of investments, and 4) achieve broad public support for needed investments in transportation infrastructure and resources for continuing operations of transportation and mobility services.

In the RTP process, extensive attention was given to development of reasonable cost and revenue estimates. Revenue estimates were prepared in cooperation with the Arizona Department of Transportation and the Regional Public Transportation Authority, utilizing extensive historical data available on the yield of various revenue sources. This allowed estimates of future local, state, federal and regional revenues to reflect the actual performance of these sources in providing funding. In the same manner, cost estimates for planned projects were developed using data from the construction of similar projects in the past in the MAG area. Contingency factors were applied to recognize the

uncertainties associated with projecting costs and revenues over the 20-year planning period. A conservative bonding strategy was also applied to the forecasted revenue streams to reflect the potential desire to accelerate project construction.

The overall revenue and costs estimates that were prepared for the RTP were reasonable for planning purposes. However, it is important to note that cost and revenue uncertainties can only be resolved once detailed engineering studies are completed and economic conditions are revealed over time. Periodic adjustments and updating of the RTP will be needed to respond to changing conditions and new information.

As part of the regional transportation planning process, a range of alternative funding sources was reviewed. MAG and ADOT conducted a joint study on the potential application of high occupancy toll lanes on the regional freeway system. Future options for increasing the state gasoline tax were also discussed extensively during the development of the RTP. In addition, federal revenues from new programs may potentially yield higher levels of funding. The extension of the one-half cent sales tax for transportation was identified by the Transportation Policy Committee as the future source that would have the greatest potential for implementing regional transportation programs in the MAG area programs. The planning process subsequently focused on this revenue source.

Fiscal monitoring and constraint were discussed extensively in conjunction with the extension of the one-half cent sales tax. This resulted in a series of policies that were included in the RTP to ensure that funding for the Plan would be carefully managed and that expenditures would reflect Plan priorities. These policies include, but are not limited to:

- That funding firewalls be established for the following modes of transportation: freeways, streets and transit, with the understanding that these firewalls represent the percentage of funding identified in the RTP and that the funds from the sales tax be deposited in their respective accounts consistent with these percentages.
- That a Life Cycle Budget and Certification Program be developed for the freeways, streets and transit elements to ensure that costs and revenues for the RTP are balanced annually.
- That the material cost change and enhancement policies now used for the freeway program (which require explicit approval of material cost changes by the Regional Council) be expanded to all transportation projects funded by the sales tax.
- That every five years, the RTP be re-evaluated to consider major plan adjustments resulting from new information or studies pertaining to the implementation of the Plan.

Subsequent state legislation regarding the one-half sales tax extension incorporated measures similar to these policies and additional language addressing uses of revenues and the plan amendment process.

In addition to revenue sources being anticipated for the future, a number of innovative financing techniques are used in the region to build major projects. These techniques include:

- Advanced Construction: allows projects to be accelerated with the use of local funds and then converted to federal funding at a later date.

- Grant Anticipation Notes (GAN): these are notes sold in the financial market for which future federal funds are used as the source of repayment. The regional freeway program plans to use more than \$300 million of GANs to complete the system by 2007.
- Board Funding Obligations: these are one-to three-year notes that allow the State Transportation Board to borrow a portion of the cash balances maintained by the State Treasurer to accelerate projects. These notes are repaid from regular transportation revenues.
- State Infrastructure Bank (SIB) and HELP Program: this program started as a demonstration for the SIB concept under ISTEA and has been expanded through additional funding. Project sponsors apply for HELP loans, usually to accelerate projects, which are reviewed by a committee that makes recommendations to the State Transportation Board.
- Loans from Local Governments: in some cases, cities have provided financing to accelerate freeway projects. Cities are repaid. According to the original schedule for the project.

FEDERAL TRANSPORTATION IMPROVEMENT PROGRAM (FTIP)

The FTIP is the short-term capital programming document that is used to implement the Regional Transportation Plan.

The MAG FTIP is usually developed on an annual basis. Although federal guidelines only require the region to develop a FTIP every two years, MAG has followed a more frequent schedule to ensure that the air quality conformity analysis is kept as up-to-date as possible, for such a fast growing region. The process that the MAG region follows in developing the FTIP incorporates all of the federally required elements.

Question: Identify how the FTIP and the process for selecting projects and developing the FTIP addresses the elements listed below.

Requirements/Expectations: The FTIP must:

- a) **Be consistent with the Regional Transportation Plan; projects included in the FTIP are to be drawn from the RTP.**

Policy guidelines have been approved by the MAG Regional Council that relate to the selection of FTIP projects and includes a schedule for developing the FTIP. The policy guidelines clearly require that all projects submitted for inclusion in the FTIP must be drawn from the RTP.

For example, in 1985, citizens in the region approved the collection of a half-cent sales tax within the region, primarily for the implementation of a regional freeway system. The projects that have been constructed and that are currently planned from the funds made available are a major component in the Regional Transportation Plan (RTP) and are included in the FTIP. These regional freeway projects are also included in a Life Cycle program, cooperatively developed by ADOT and MAG, to ensure a fiscally constrained program.

- b) **Be supported by a comprehensive and inclusive public involvement effort. That complies with Title VI and the Executive Order on Environmental Justice.**

The FTIP process is supported by an extensive public outreach and involvement program that complies with Title VI and Environmental Justice. In the first few weeks of the FTIP process, MAG holds a stakeholder's meeting to provide interested parties the opportunity to provide input into the ground rules and priorities for developing the FTIP. This stakeholder's meeting is the first part of a public involvement effort that continues throughout the whole process.

Due to the larger than normal effort being put forth on the recently approved RTP, and the public involvement effort, much of the public involvement support for the development of the RTP and the FTIP this year was a shared effort. In addition, the development of the RTP and the FTIP were carried out concurrently, which enabled us to ensure a very close consistency between both documents. The public involvement phases of the FTIP are separately documented in a series on early, mid and final phase public involvement reports. The public involvement effort is further addressed in detail under Section Two.

As part of the FTIP process, MAG produces a TIP Guidance Report (TGR). This document fulfills the

requirements of the Management Systems Reports and also includes a chapter on Title VI and Environmental Justice considerations, to ensure that these elements are recognized in the development of the FTIP. This includes a series of maps showing the most recently socio economic data from the 2000 Census and the location of all of the “protected” communities.

c) Include all regionally significant projects, including from non federal funding sources.

The MAG/FTIP includes all regionally significant projects funded by federal and non-federal sources. The effort to produce a FTIP usually starts in March of each year by updating the TIP Guidance Report (TGR). The TGR provides the guidance that MAG member agencies need to effectively program the federal, regional and local funds available for transportation projects in the region. As part of this guidance, the need to identify all regionally significant projects, including those from non-federal sources, is thoroughly described.

The TGR also provides information on systemwide congestion and the development and implementation status of the other management systems.

d) Clearly identify: i) funding source details, for both federal and non-federal funds, ii) project cost estimates, iii) implementing agency, iv) implementation schedule, v) project information such as type of work, project size and scope, project phase, termini, and in sufficient detail to allow for air quality analysis, and vi) transportation control measures included in the State Implementation Plan (SIP).

The FTIP includes detailed descriptions of project characteristics, which clearly identify project features, schedules and funding. These descriptions also provide the information required for air quality conformity analysis. To assist agencies in submitting this material, the TGR provides extensive information and instructions on project data requirements. In addition, there is a discussion of federal transportation funds, their eligibility and expected availability. The TGR contains copies of the application forms that agencies should use for submitting project requests for MAG federal funds, including transit projects.

The application forms for MAG federally funded projects are the first part of the TIP Data Entry System. MAG staff manually enter the data from these forms into the TIP database. The forms are designed to ensure that all of the necessary data that is needed to fulfill the federal requirements is provided, including funding source details for both federal and non-federal funds; cost estimates; the sponsoring agency and expected year of completion; and individual project location and scope data. The MAG TIP Data Entry System is a computer database driven system that allows members to update the status of existing projects, change data where appropriate and to add new projects when necessary. This level of data collection provides detailed data sufficient for air quality conformity analysis.

A further chapter in the TGR contains a discussion of the air quality concerns facing the region and explains the process for selecting Transportation Control Measures and Congestion Mitigation and Air Quality Improvement Program projects. Projects which are recognized as Transportation Control Measure are tracked by the MAG Air Quality staff and an annual report is provided.

e) Be based on an appropriate and cooperative project selection process between the MPO, the state, local governments, and other appropriate transportation agencies, including transit agencies, and include priority given to TCM’s identified in the SIP in non-attainment and maintenance areas.

The MAG FTIP is developed through a process that is characterized by a highly cooperative project selection process. The general outline for FTIP development is as follows:

- Stakeholders meeting and TIP Guidance Report;
- Additions to the MAG Federally funded program approved by MAG working cooperatively with the State DOT and Transit Operator;
- Additions to the State Highway Program (including State Federally funded projects and the freeway life cycle projects) approved by the State working cooperatively with MAG and Transit Operator;
- Transit additions approved by the Transit Operator working cooperatively with the State and MAG;
- All other MAG member agencies add locally and privately funded regionally significant projects added to the FTIP and changes made to existing projects as appropriate, including identifying all completed or deleted projects or those that are expected to be underway by the end of the calendar year;
- A Draft FTIP is approved for the purposes of undergoing an air quality conformity analysis;
- When the conformity analysis is successfully completed, the FTIP is approved by MAG and the Governor's designee;
- The Conformity Analysis is approved by FHWA and FTA, with guidance from EPA;
- The first three years of the TIP are included in the appropriate STIP, without modification;
- Projects which are recognized as Transportation Control Measure are tracked by the MAG Air Quality staff and an annual report is provided.

f) Be fiscally constrained by year, and include identification of revenue sources, investment costs, new funding requirements, and demonstrate that adequate financial resources are applied to operate and maintain the transportation system at an appropriate level. In non-attainment and maintenance areas, limit projects included in the first two years to those for which funds are available or committed.

The MAG FTIP is fiscally constrained by year and the revenue sources utilized are described in detail at both the system level and project level. All of the projects included in the FTIP are expected to be implemented, and the onus on ensuring that projects are implemented occurs when the projects are programmed. This allows for a more equitable system of sharing the funding available, as determined by the preferences and priorities laid out by decision-makers at the beginning of the process. MAG member agencies are responsible for implementing the projects in the TIP. MAG carries out programming based on expectations of obligation authority and, therefore, all projects listed in the FTIP are expected to be implemented. As MAG is both a non-attainment and a maintenance area, MAG ensures that projects included in the first two years are those for which funds are available or committed.

A MAG policy is that, once a project is selected for federal funding in the MAG TIP, it will only be withdrawn (and the funding removed) at the request of the sponsor agency. This gives sponsor agencies the confidence to select projects that are able to fulfill the program requirements and the policies applied to such goals as improving air quality.

g) Be developed and adopted through an interactive process with the MPO Policy Board.

The FTIP is developed through a highly interactive process involving the MAG committee structure and policy boards. Individual modal committees (e.g. Street Committee, ITS Committee, Bicycle Task

Force Committee and Pedestrian Working Groups) identify recommended projects and funding priorities for individual modes. With modal committee recommendations as input, the MAG Transportation Review Committee prepares a complete Draft FTIP, which is assembled through a multi-stage process, involving MAG agencies and staff at each step in the process. This Draft FTIP is presented to the MAG Management Committee and Transportation Policy Committee for further comment and revision, as appropriate. Briefings on the Draft FTIP are also provided to the MAG Regional Council and comments received. The final Draft FTIP is approved by the Regional Council for air quality conformity analysis. Upon a technical demonstration of air quality conformity, and a public hearing and further input as appropriate, a final FTIP is adopted by the MAG Regional Council. As a result of this interactive process, MAG policy boards are fully involved not only in the approval of the FTIP, but also in a multi-stage development process.

h) Be implemented in a priority order based on identified project or phase year.

The MAG FTIP is implemented based on the priorities established in the Regional Transportation Plan and project implementation years identified in the FTIP. Federal funding and state funding for projects is provided only if project schedules are consistent with the FTIP. Schedules for locally funded projects are also identified in the FTIP. Adjustments, as may be necessary, to project implementation schedules are accomplished through amendment of the FTIP.

i) Have clearly outlined criteria and procedures for amending the FTIP, including definitions, criteria, and procedures for administrative amendments.

The process for amending the FTIP has been clearly outlined at MAG. Specific procedures were established as a result of detailed consideration of this issue by the Transportation Review Committee. For example, if MAG federal funds are underestimated, a variety of techniques are used through the annual close out process, depending on the type of funds and the priority of the possible projects that might benefit. This includes: accelerating projects, or phases of projects from future years of the TIP or converting projects that have already been advance constructed.

In addition, as part of the amendment process, each potential amendment is assessed to determine whether it represents an administrative adjustment. The technical features of amendments are addressed at length by the modal committees and the Transportation Review Committee. Recommendations regarding amendments are considered by the MAG Management Committee and the Transportation Policy Committee. The MAG Regional Council takes final action on all amendments to the FTIP.

j) Be monitored after adoption for project implementation status as part of an information sharing agreement between appropriate agencies.

The FTIP is closely monitored after adoption through cooperative information sharing between MAG and implementing agencies. The implementation of projects varies depending on the type of project and the type of funding concerned. The completion, deletion or underway status of projects listed in the FTIP is tracked on an annual basis and a list of the most significant projects is provided in the following FTIP. However, as the following FTIP is often produced prior to the end of the fiscal year, the project status are based on expected implementation. The list in the FTIP reports on the most prominent projects such as all federally funded projects and regionally significant locally and regionally funded projects that are in excess of \$1 million total cost.

In addition, although MAG is not directly responsible for accounting for the obligation of federal funds, MAG provides a list of all federally funded projects that obligate in the region within a fiscal year. This list is displayed on the MAG website shortly following the conclusion of the federal fiscal year.

Question: Also, address how fiscal constraint is addressed in the FTIP, including how revenues and costs are identified, how reasonable assumptions for revenue forecasts are developed, and if new revenue sources and innovative finance methods are addressed.

The FTIP is developed through a process that incorporates fiscal constraint, thorough and cooperative revenue forecasting, and application of innovative finance methods. Representatives from the State, Metropolitan Planning Organizations and Rural Councils of Government annually meet to cooperatively determine what funds are expected to be available for programming FTIPs. MAG participates in the Risk Analysis Process (RAP) used by ADOT to provide the array of assumption to be used for the revenue forecasts. These assumptions include such variables as population and income growth, interest rates, and employment among others. This is followed up by closer cooperation between the staffs of the agencies involved to arrive at more detailed estimates of the funds expected to be available and, where appropriate, the obligation authority expected to be available.

In addition to the normal revenue sources applied in the FTIP, a number of innovative financing techniques are used in the region to build major projects. These techniques include:

- Advanced Construction: allows projects to be accelerated with the use of local funds and then converted to federal funding at a later date.
- Grant Anticipation Notes (GAN): these are notes sold in the financial market for which future federal funds are used as the source of repayment. The regional freeway program plans to use over \$300 million of GANs to complete the system by 2007.
- Board Funding Obligations: these are one-to three-year notes that allow the State Transportation Board to borrow a portion of the cash balances maintained by the State Treasurer to accelerate projects. These notes are repaid from regular transportation revenues.
- State Infrastructure Bank (SIB) and HELP Program: This program started as a demonstration for the SIB concept under ISTEA and has been expanded through additional funding. Project sponsors apply for HELP loans, usually to accelerate projects, which are reviewed by a committee and recommendations made to the State Transportation Board.

Question: Also identify monitoring activities to ensure that fiscal constraint is maintained and how the MPO ensures that committed funding sources remain available.

The MAG FTIP includes a number of procedures that ensure fiscal constraint throughout the implementation process. The FTIP constrains project selection to the funds that are not only reasonably, but also realistically, expected to be available. Although current federal guidelines allow the inclusion of projects up to the level of apportionments, MAG staff, working in close cooperation with State staff, estimates how much obligation authority (OA) is reasonably expected to be available and programs projects based on the (usually) smaller amount. For example, OA rates for Arizona during ISTEA averaged 95% and this slipped to almost 90% during the period of TEA-21. This procedure effectively

ensures that over-programming of federal funds does not occur, thereby ensuring fiscal constraint at the federal funds level.

In addition, when the programming process is carried out in conjunction with the operation of a well reasoned advance construction program (pioneered by ADOT, working in close cooperation with MAG) and a tightly defined fiscal year end close out process, the obligation of the federal funds available to the region becomes more assured, even in the face of project delays often experienced due to environmental process and right-of-way concerns.

Regional freeway system projects in the FTIP come from a fiscally constrained life cycle program. This program includes both federal and non-federal funding sources. In addition, MAG staff reviews the submittal of projects from local agencies that are funded through local sources. During this review, MAG staff double checks that local funds listed are reasonable and that funding sources such as bonds or sales taxes are realistic and are either approved (and, therefore, committed funds) or are reasonably expected to be available, depending on the year involved.

SECTION TWO: MPO ACTIVITIES

CONFORMITY ANALYSIS/AIR QUALITY PLANNING

In nonattainment areas for air quality standards, the MPO is responsible for determining the conformity of the RTP with the State Implementation Plan (SIP) to achieve air quality standards. The goal is to achieve the air quality standards of the Clean Air Act by maintaining mobile source emissions within the levels established.

The Maricopa Association of Governments was designated by the Governor in 1978 and recertified by the Arizona Legislature in 1992 to serve as the Regional Air Quality Planning Agency, in accordance with Section 174 of the Clean Air Act. Within this role, MAG develops the nonattainment and maintenance plans for carbon monoxide, ozone, and particulates (PM-10). These plans are developed through a cooperative effort among the Arizona Department of Environmental Quality, Arizona Department of Transportation, Maricopa County Environmental Services Department and MAG. The commitments to implement the air quality measures in the plans are received from the local governments and the Arizona Legislature. MAG also conducts the air quality conformity analysis on the Regional Transportation Plan and Transportation Improvement Program.

Overall, air quality has significantly improved within this region due to the implementation of several air quality measures by the State and local governments. To date, there have been no violations of the federal carbon monoxide and one-hour ozone standards since 1996. The Environmental Protection Agency issued official attainment determinations for the one-hour ozone standard on May 30, 2001 and for the carbon monoxide standard on November 21, 2003.

Within the last three years, MAG prepared a Carbon Monoxide Redesignation Request and Maintenance Plan and an One-Hour Ozone Redesignation Request and Maintenance Plan which were submitted to EPA in May 2003 and March 2004 respectively. In addition, the EPA issued the final approval action on the Revised MAG 1999 Serious Area Particulate Plan for PM-10 on July 25, 2002.

On December 9, 2003, the Federal Highway Administration and Federal Transit Administration issued a conformity finding on the Special FY 2004-2007 MAG Transportation Improvement Program and Regional Transportation Plan. The air quality modeling performed by MAG indicated that the emissions from the transportation plans would be maintained within the motor vehicle emission budgets established by the air quality plans for 2006, 2015, 2016, and 2026.

Question: Identify how the MPO addresses air quality conformity, including the elements listed below.

Requirements/Expectations: In nonattainment areas, the MPO must:

- a) **Prepare the transportation conformity document, and approve and submit conformity findings to FHWA/FTA as needed.**

In October of 2003, MAG prepared an air quality conformity analysis on the Special FY 2004-2007 MAG Transportation Improvement Program (TIP) and the new Regional Transportation Plan. The results of the analysis indicated that the mobile source emissions from the transportation plans were within the motor vehicle emissions budgets established by the air quality plans.

The 2003 MAG Conformity Analysis document described the federal and state regulatory requirements, latest planning assumptions, transportation modeling, air quality modeling, transportation control measure implementation, and the conformity test results for carbon monoxide, ozone, and particulate matter. The years modeled for the conformity test were 2006, 2015, 2016, and 2026. The conformity document was made available for a thirty-day public review period, an open house, a public hearing and interagency review.

On November 25, 2003, the MAG Regional Council approved the 2003 MAG Conformity Analysis, TIP, and Regional Transportation Plan. On December 3, 2003, MAG submitted the Final Regional Transportation Plan Input Opportunity Report, Regional Transportation Plan Input Opportunity Interim Report, TIP, Regional Transportation Plan and Conformity Analysis to the Federal Highway Administration and Federal Transit Administration. An official conformity finding which indicated that the federal conformity requirements had been met was issued on December 9, 2003.

In addition, MAG conducted regional emissions analyses and conformity consultation on a variety of transportation projects and plan amendments as necessary. MAG then completed the consultation process by notifying the appropriate review agencies of the MAG Regional Council approvals and of any comments received during the period of consultation.

b) Perform the required regional transportation modeling and/or emissions modeling to support the conformity analysis.

The Maricopa Association of Governments utilizes the latest state-of-the-art regional modeling system for conducting the complex air quality modeling analysis required for the nonattainment and maintenance plans, which then establish the motor vehicle emissions budgets for conformity. MAG also performs the required regional transportation modeling and air quality emissions modeling for the conformity analysis.

For the 2003 MAG Conformity Analysis, the MAG regional transportation modeling was performed using EMME/2 software for both highway and transit network assignments. The transportation models forecast AM peak period, midday, PM peak period, and nighttime vehicle traffic, as well as daily transit ridership for the MAG transportation modeling area. The transportation modeling area contained 1,995 traffic analysis zones, covering an area of approximately 6,500 square miles.

In the 2003 MAG Conformity Analysis, the following air quality models were used to estimate emission factors and emissions for carbon monoxide, volatile organic compounds and PM-10: MOBILE6.2 for motor vehicle emission factors for carbon monoxide and volatile organic compounds; PART5 for particulate exhaust and fugitive dust emission factors; and M6Link for the calculation of spatially and temporally allocated onroad mobile emissions using the emission factors from the above models and travel and speed data from the transportation model.

The 2003 MAG Conformity Analysis also utilized the latest planning assumptions for population, employment, traffic counts, vehicle miles of travel, speeds, vehicle registrations, and implementation data for control measures. These assumptions along with the conformity processes were distributed for interagency consultation before they were used in the conformity analysis.

- c) **Coordinate with local air quality districts to develop and implement plans to achieve conformity.**
- and
- d) **Develop and maintain agreements with air quality organizations and other appropriate parties to define responsibilities relating to conformity.**

The Maricopa Association of Governments closely coordinates with the Arizona Department of Environmental Quality and Maricopa County Environmental Services Department to develop and implement plans to assist in achieving conformity. The air quality modeling performed by MAG for the regional nonattainment and maintenance plans is reviewed with the local air quality agencies; this modeling establishes the motor vehicle emissions budgets for conformity purposes. MAG also works with the Maricopa County Environmental Services Department to ensure that the regionwide Rule 310 Fugitive Dust Control Rules are adequately implemented and enforced to reduce dust on paved and unpaved roadways.

The 1992 Air Quality Memorandum of Agreement among the Arizona Department of Environmental Quality (ADEQ), Arizona Department of Transportation (ADOT), Maricopa County and MAG provides the framework and guidelines to promote coordinated decision making in planning, development, and implementation and enforcement of those actions necessary to attain and maintain the National Ambient Air Quality Standards in Maricopa County. The memorandum indicates that MAG is responsible for transportation/air quality conformity determinations, subject to the consultation procedures as provided by law (Clean Air Act Section 176).

The State rules for transportation conformity, adopted on April 12, 1995, specify that the MPOs must develop specific conformity guidance and consultation procedures and processes. To meet State requirements, MAG developed and adopted the MAG "Transportation Conformity Guidance and Procedures" document which addresses the determination of "regional significance" status for transportation projects and the approval process for regionally significant projects (as revised by the MAG Regional Council March 27, 1996). The MAG "Conformity Consultation Processes" document was also prepared to detail the public and interagency consultation processes to be used in the development of regional transportation plans, programs, and projects (adopted February 28, 1996 by the MAG Regional Council).

- e) **Lead, or participate in, an interagency process designed to facilitate communication among involved agencies and make decisions on the conformity process.**

In order to comply with 40 CFR Section 93.105 of the federal conformity rules and the State conformity rules, MAG conducts an interagency consultation process to facilitate communication among involved agencies and make decisions on the conformity process, as described in the MAG "Conformity Consultation Processes" document. Specifically, MAG consults with the MAG member agencies, Maricopa County, Arizona Department of Transportation, Arizona Department of Environmental Quality, Environmental Protection Agency, Federal Highway Administration, Federal Transit Administration, agencies receiving federal transportation funding and other interested parties.

MAG also maintains a proactive public involvement process which provides an opportunity for public review and comment prior to taking formal action on a conformity determination. Under the interagency consultation procedures, the Regional Transportation Plan (RTP) is prepared by MAG with guidance from the MAG Transportation Policy Committee, MAG Management Committee and MAG Regional Council.

Copies of the final draft document are provided to the entities which are part of the interagency review process. The RTP is required to be publicly available and an opportunity for public review and comment is provided.

The Transportation Improvement Program (TIP) is prepared by MAG with the assistance of the MAG Modal Committees, Transportation Review Committee, and Transportation Policy Committee. Copies of the Draft TIP are provided to MAG member agencies and the other entities in the interagency review process. The TIP is also required to be publicly available and an opportunity for public review and comment is provided. The MAG consultation process for the conformity analysis includes a thirty-day comment period followed by a public hearing that is conducted on the analysis, TIP, and RTP.

f) Participate in identifying, selecting, and implementing Transportation Control Measures for inclusion in the State Implementation Plan in cooperation with appropriate parties.

The Maricopa Association of Governments maintains an extensive air quality planning process through which Transportation Control Measures are identified, selected and implemented as part of the State Implementation Plan. The MAG regional air quality plans are developed through a cooperative effort among the Arizona Department of Environmental Quality, Arizona Department of Transportation, Maricopa County and MAG, as described in the Air Quality Memorandum of Agreement. Collectively, these agencies generate information on emission inventories which identify pollution sources; air quality modeling data; and descriptions, assumptions, and cost effectiveness information for several air quality control measures.

The MAG Air Quality Technical Advisory Committee reviews all pertinent air quality information generated by the air quality agencies, receives input from the citizenry, and then recommends a List of Suggested Measures for consideration by the State and local governments under their respective authorities. Following Regional Council approval of the Suggested List, each entity then determines which measures are technologically and economically feasible for implementation by that entity. Formal resolutions with commitments to implement measures from local governments and legislation passed by the Arizona Legislature for air quality measures are then included in the adopted plans.

The committed measures are implemented by the respective entities. Maricopa County Environmental Services Department tracks the implementation of the air quality measures in the adopted plans. In addition, the 2003 MAG Conformity Analysis describes the status of Transportation Control Measures included in the applicable air quality plans. The Transportation Control Measures are identified as priorities within the priority programming process as required.

The Congestion Mitigation and Air Quality Improvement Funds are allocated by MAG to fund a variety of Transportation Control Measures in the regional air quality plans. These projects include PM-10 Certified Street Sweepers (efficient for reducing dust on paved roads); paving unpaved roads; traffic flow improvements; public transit improvements, Regional Rideshare Programs and the Maricopa County Trip Reduction Program.

g) Be involved in establishing air quality budgets in cooperation with the State, regional, and local air quality agencies.

As the designated Regional Air Quality Planning Agency, MAG is directly involved in establishing the air quality budgets which are ultimately used for conformity purposes. MAG performs complex air quality modeling which is used to determine the goals for attaining the air quality standards, the air

quality impacts of various control measures, and the demonstration of attainment and maintenance of the standards. MAG also develops the onroad mobile source emissions inventory for the air quality plans.

The modeling for the attainment and maintenance demonstrations produces motor vehicle emissions budgets for conformity purposes. The air quality plans, including the modeling and conformity budgets, are peer reviewed and consulted upon through the MAG interagency consultation process and the cooperative relationships among the entities in the Air Quality Memorandum of Agreement. The budgets must be found to be adequate or approved by the Environmental Protection Agency before they are used by MAG in the conformity analysis. The 2003 MAG Conformity Analysis used the budget test for all three air pollutants.

The MPO can also:

a) Perform other technical analysis to evaluate air quality improvement strategies.

The Maricopa Association of Governments also conducts a technical air quality modeling evaluation on proposed projects submitted for Congestion Mitigation and Air Quality Improvement Funds. Information on air quality impacts and cost effectiveness for the proposed projects is then utilized through the MAG Committee Structure for selection of projects to receive funding.

Technical air quality research studies are performed by MAG or MAG consultants as the need arises in support of the regional air quality plans. Examples include the Off-Road Engine Survey and the PM-10 Emissions Inventory Development.

b) Conduct public information efforts to educate the public on air quality issues and strategies to improve air quality.

The Maricopa Association of Governments provides for opportunities for public involvement throughout the development of the regional air quality plans. Draft regional air quality plans and the conformity analysis documents are made available for a thirty-day public review and comment period, prior to conducting public hearings on these items. Response to comments documents are then prepared and presented to the MAG Air Quality Technical Advisory Committee for their consideration. Over the years, MAG has received many valuable comments from the citizenry.

The MAG Air Quality Technical Advisory Committee is composed of representatives from eight MAG member agencies, citizens, environmental interests, health interests, automobile industry, fuel industry, utilities, public transit, trucking industry, rock products industry, construction firms, housing industry, agriculture, business, parties to the Air Quality Memorandum of Agreement, and various State and Federal agencies. All of the Committee meetings provide for opportunities for the public to present comments on air quality issues.

Public outreach on air quality issues is also provided by sending invitation letters to Title VI stakeholders for the public hearings on the regional air quality plans and conformity. The letters also provide notification of document availability for public review and comment.

Question: Identify the current conformity status of the MPO region and the number of conformity lapses, and their duration, that have occurred in the last three years, or any potential pending lapses.

On December 9, 2003, the Federal Highway Administration and Federal Transit Administration jointly issued a finding of conformity for the Special FY 2004-2007 MAG Transportation Improvement Program and Regional Transportation Plan. No conformity lapses have ever occurred within this region.

Within the last three years, the Environmental Protection Agency formally approved the Revised MAG 1999 Serious Area Particulate Plan for PM-10 on July 25, 2002. The EPA subsequently issued a completeness finding and an adequacy finding for the motor vehicle emissions budget in this plan.

On July 30, 2002, the Arizona Center for Law in the Public Interest filed a lawsuit in the U.S. Court of Appeals for the Ninth Circuit to challenge EPA's approval of the plan. The main arguments in the lawsuit were the failure of the plan to include requirements to use California Air Resources Board diesel fuel and sufficiently stringent measures for agricultural sources of PM-10. The Court heard oral arguments June 9, 2003 and no court ruling has been issued. The impact on conformity of the pending court ruling is unknown.

Question: Discuss interagency agreements, coordination, and related activities undertaken by other agencies in the region, and if applicable, how they have responded or are responding to lapses or potential lapses.

The Maricopa Association of Governments conducts the conformity analysis and air quality planning activities in accordance with the 1992 Air Quality Memorandum of Agreement. This long-standing agreement describes the roles and responsibilities of the Arizona Department of Environmental Quality, Arizona Department of Transportation, Maricopa County Environmental Services Department and MAG. It provides the framework for coordinated decision making in planning, development, implementation and enforcement of those actions necessary to attain and maintain the federal air quality standards. By clearly defining roles and responsibilities, the Memorandum of Agreement maximizes resources and avoids duplication of efforts among the entities.

To date, no conformity lapses have occurred in the region. Currently, there is a court ruling pending on the outcome of the air quality lawsuit filed by the Arizona Center for Law in the Public Interest on the Revised MAG 1999 Serious Area Particulate Plan for PM-10. The impact on conformity of the pending court ruling is unknown.

If the future court ruling requires additional work on the Serious Area Particulate Plan for PM-10 or places the current conformity finding at risk, MAG will work cooperatively with its member agencies and the parties to the Air Quality Memorandum of Agreement to expediently address the issues identified by the court.

Finally, MAG will continue its advanced planning activities to address pertinent issues which may be identified in the air quality lawsuit court ruling. In October 2003, the MAG Regional Council approved a selected list of consultants for Air Quality Technical Assistance On-Call Services to provide additional resources for addressing issues from the future lawsuit court ruling on the Serious Area Particulate Plan for PM-10 and other assistance which may be needed for the development of air quality plans, conformity, and air quality modeling. The technical assistance services are not to exceed \$100,000.

GOODS MOVEMENT PLANNING/COORDINATION

The efficient movement of goods within and through the region should be considered as part of the MPO's regional transportation planning activities.

MAG has made continuing progress in understanding goods movement issues at both the local and regional levels. As part of this process, MAG recently conducted an in-depth *Regional Freight Assessment*, which provided a comprehensive overview of goods movement and freight activities in the region. This analysis of goods movement within the region has enhanced MAG's ability to further understand the freight industry, and to obtain a better perspective on the issues pertaining to regional congestion, freight industry logistics, and the types of commodities that are transported. These efforts have also led to the preliminary identification of long term needs associated with corridor planning, the consideration of freight in intelligent transportation systems, the need to further assess and define freight-related traffic through truck travel modeling and forecasting, the continuing development of air cargo facilities, and the consideration of rail issues. In addition, a freight element has been included in the MAG Regional Transportation Plan, adopted in November 2003. MAG will continue to assess regional freight issues, to refine its present base of knowledge, work toward the development of a comprehensive freight plan, and also build stronger coalitions and partnerships with the public and private freight sectors.

Question: Identify how the MPO addresses the elements listed below.

Requirements/Expectations: The MPO must:

a) Identify and discuss goods movement issues within the RTP.

The Regional Transportation Plan (RTP) dedicates an entire chapter to goods movement and assesses items pertaining to regional freight infrastructure. The RTP provides an overview of freight movements by types of commodities and overall tons; assesses each of the trucking, rail, and air cargo freight transportation modes; and also considers the intent of regional freight planning efforts that are proposed in the future.

The RTP addresses several key, overlying issues that are particularly relevant to the goods movement process. As addressed in the RTP, transportation solutions for freight will need to include increases in highway capacity; the widening and ultimate expansion of the regional arterial network; an enhanced Intelligent Transportation System (ITS) of traffic management; intersection improvements; and the construction of new freeways, such as the Loop 202 South Mountain Freeway and the West Valley's Interstate 10 Reliever, which will collectively relieve congestion by providing improved accessibility to the area south of I-10 (which contains high concentrations of truck terminals and other generators of truck traffic). New freeway construction, including the addition of freeway relievers and bypasses, will help to handle high volumes of truck traffic engaged in the movement of goods to, from, within and throughout the MAG region. MAG has also worked with the BNSF and UP railroads to ensure that rail freight and the intermodal connection for trucks are considered in the regional planning process. In addition, air cargo and intermodal factors are included in the airports element of the RTP. The RTP addresses these issues and project solutions, which will help address future goods movement needs in the region.

b) Seek to involve members of the goods movement community in the regional transportation planning process.

Since initiating preliminary efforts to study and address freight issues during the mid to late-1990s, MAG has actively sought the assistance of individuals representing the private freight sector. In 1995, MAG completed an Intermodal Management System (IMS) report, which addressed a broad range of freight issues, and incorporated input from various members of the private sector. In 1998, MAG conducted a regional *Valley Freight Forum*, which provided an opportunity for public and private sectors to exchange ideas and identify opportunities to further enhance goods movement efficiency. This effort was followed by further freight-related studies in 1999 and 2000, when MAG conducted an external travel survey and analyzed the results. The external travel survey involved the trucking industry through an assessment of truck travel patterns into and through the region. In addition, during 1999 and 2000 MAG participated in studies to assess and locate the CANAMEX freight corridor within the region, which also represents an issue of concern to the private freight sector.

In 2001, MAG embarked upon the preparation of an RTP to guide transportation investments in the region over a 20-year period. During the public participation process, MAG conducted a series of *Expert Panel Forums* and *Regional Focus Groups* throughout the region. Many of these meetings involved individuals representing the private sector and the business community, which has a stake in the efficient movement of goods that support a growing regional economy.

In 2002, during the development of the RTP, the Transportation Policy Committee (TPC) was established by the MAG Regional Council to oversee the regional transportation planning process, and to find solutions to the region's transportation challenges. The TPC developed, guided and recommended the resulting plan that was eventually adopted by the MAG Regional Council. As required by statutes, the TPC included private sector freight representation. This active presence of private freight sector representation on the Committee helped to ensure that the concerns associated with regional goods movement were considered in the RTP process.

MAG is also evaluating options for a comprehensive freight planning effort. Such an endeavor would require the active participation of the freight industry. Based on the regional freight assessment, the strategic direction for regional freight planning, will necessarily include the private sector.

c) Identify key goods movement facilities in the region.

MAG has completed a *Regional Freight Assessment*, which contains a regional inventory and analysis of goods movement facilities located throughout the MAG region. The findings and significant aspects of this assessment were incorporated into the RTP for the region. As part of this transportation planning process, MAG has assessed the significant transportation freight modes serving the region, including trucking, rail, air cargo and pipelines. In addition, this analysis identified and mapped key facilities that are utilized in the movement of goods, such as roadways, rail lines, pipelines, freight terminals, warehouses, intermodal facilities, and cargo airports. A total of 43 regionally significant freight terminals, 60 major warehouse facilities, 11 intermodal freight facilities, and the air cargo operations at Phoenix Sky Harbor International Airport and Williams Gateway Airport. An in-depth analysis of land uses, freight corridors, and community job centers was also provided in order to identify "concentrations" of freight activity.

Some of the primary methods of goods movement throughout the region include transportation via the regional highway network, the regional arterial network, railroads, and cargo airports. The Union Pacific Railroad and the Burlington Northern Santa Fe railway currently maintain rail service in the MAG region.

d) Seek to identify the transportation infrastructure, investment, and policy needs of the goods movement process.

Goods movement infrastructure, investment and policy needs were identified as one of the major objectives of the Regional Transportation Plan. A key objective, adopted by the Transportation Policy Committee during the development of the RTP, was: “Objective 2C - Maintain a reasonable and reliable travel time for moving freight into, through and within the region, as well as provide high-quality access between intercity freight transportation corridors and freight terminal locations, including intermodal facilities for air, rail and truck cargo.” In the RTP, one of the major ways in which freight needs were addressed was through capacity enhancements in the roadway system, which help reduce congestion and facilitate more efficient movement of goods. Also, new corridors were identified that serve areas with high concentrations of freight terminals, for example the I-10 Reliever. Major freight corridors, in particular, I-10 were included in the RTP. This corridor was subject to a major multi-state effort to look at the entire corridor and identify bottlenecks. I-10 through metro Phoenix was identified as a major bottleneck. Improvements included in the RTP for I-10, plus improvements to SR85 and the I-10 Reliever are planned to improve freight flows. In addition, air cargo and intermodal factors are included in the airports element of the RTP.

As part of the regional transportation planning process, MAG will continue to identify transportation infrastructure and investment needs at the local and regional levels, and continuously seek input on policy issues from the public and private sectors. With freight representation on the Transportation Policy Committee, goods movement needs will continue to be considered as part of the regional transportation planning process. In the future, MAG will further assess regional freight issues through active planning and assessment, and will work toward maintaining a strong and ongoing dialogue with private-sector freight representatives in order to identify infrastructure, investment, and policy needs of the goods movement process.

e) Include regionally significant, funded goods movement projects in the RTP and RTIP, regardless of funding source.

MAG has included a number of regionally significant freight projects within the Regional Transportation Plan (RTP), and continues to include a variety of projects within the ongoing Regional Transportation Improvement Program (RTIP). Such projects are directed at improving capacity, reducing regional congestion and traffic impacts, intersection improvements, arterial widening, and additional projects which will benefit the movement of goods throughout the region. Within the RTIP, many freight-related projects are considered to be of “regional significance,” primarily due to the fact that such projects add through-lane capacity to an arterial of higher classification for a minimum distance of one-half mile, or involve improvements to a freeway to add turning movements.

The RTIP addresses freight project needs through the developed MAG Intermodal Management Systems (IMS) process. As part of the IMS, road system improvement projects particularly related to freight movement were identified, covering the categories of: 1) traffic congestion, 2) pavement, 3) signing, 4) clearance, 5) signalization, and 6) merging lanes. The benefits of these projects for freight movement are a consideration in the programming process. Because of the multi-modal benefits of these kinds of projects, they generally have not been labeled specifically as freight projects.

The MPO can also:

a) Conduct a regional goods movement coordination and information group on a regular basis.

MAG has recently completed a *Regional Freight Assessment*, which has provided valuable information on freight activities and goods movement for the region. In addition, a freight element has been included in the RTP, which was adopted in November 2003. To further advance freight planning, MAG is pursuing subsequent regional freight planning processes that will result in an expanded goods movement presence in the regional transportation planning process. Input from the freight industry on a regular basis will play an important role in this effort. It is expected that input will be sought from interests associated with trucking, air cargo, railroads, courier services, express package delivery services, manufacturers, wholesalers, utilities, transportation officials and other members of the public and private sectors. Contacts with the freight sector would be maintained on an ongoing basis to address policy issues, local and regional freight needs, planning concerns, and to facilitate project development.

b) Collect and analyze regional goods movement flow data.

In an attempt to gain a better understanding of freight, and to further assess the nature and significance of the freight industry in the region, MAG purchased the comprehensive TRANSEARCH database from Reebie Associates, during April of 2003. The Reebie Associates' TRANSEARCH database is a nationally recognized source of high-quality freight data, and provides a considerable level of detail for commodities and freight flows by mode to other regions of the United States, and throughout the State of Arizona. The MAG TRANSEARCH dataset is based on a compilation of specific and analytical freight information, which utilizes a base year of 2001 for analysis purposes. The database provides detailed information on the number of tons moving into and out of the region, and is focused on the primary categories of freight modes, commodities and the origin and destination of goods.

Through the purchase and analysis of this data, MAG has a better understanding of regional goods movement. The data specifically identifies the top commodities that are transported by truck, rail and air cargo movements; identifies the amount and type of goods that are transported to other regions; and also analyzes commodities that are received from other destinations. Aside from freight flow and commodity information, data is also provided on the overall tons being moved, the region's primary trading partners and markets, and ongoing trade with the Nation of Mexico. In the future, it is expected that MAG will continue to update and upgrade freight datasets, and identify other sources of available commodity data to ensure that all available information is current.

c) Develop a regional goods movement plan, often in cooperation with other agencies.

Since the development of an Intermodal Management System (IMS) report in 1995, MAG has taken continuing steps toward understanding regional freight issues. In 1998, MAG conducted a regional *Valley Freight Forum*, which was followed by further freight-related studies in 1999 and 2000, when MAG conducted an external truck travel survey and participated in studies to assess and locate the CANAMEX freight corridor within the region. In 2001, MAG embarked upon the preparation of an RTP to guide transportation investments in the region over a 20-year period. During the public participation process, MAG conducted a series of *Expert Panel Forums* and *Regional Focus Groups* throughout the region. Many of these meetings involved individuals representing the private sector and the business community, which has a stake in the efficient movement of goods in support of a growing regional economy. In July of 2003, MAG completed a *Regional Freight Assessment*, which provided an in-depth analysis of existing conditions and commodity flow data for the MAG region. In November 2003, the RTP, which included a freight element, was adopted by the MAG Regional Council. At present, MAG is in the process of investigating the possibility of moving forward with a more comprehensive freight planning effort. As part of this undertaking, freight planning process flow charts and task descriptions have been prepared, a proposed outline for a regional freight plan has been

developed, and the phasing of the next steps in a comprehensive process is being assessed. This effort will require the ongoing cooperation and participation of local cities and towns, and various state agencies. MAG will maintain an ongoing and active partnership with its member agencies, state governmental agencies, and all relevant public and private sector representatives and entities in the development and enhancement of future freight planning.

d) Undertake specific goods movement related planning efforts in coordination with members of the goods movement community and other agencies.

MAG has coordinated planning efforts on the recently-adopted RTP with each of the region's cities and towns, with the Arizona Department of Transportation, and with a number of other state and federal agencies. MAG has also enlisted the interests and representation of the private freight sector, and has also considered all comments and input from the public and private sectors with regard to freight planning and goods movement. MAG will continue to coordinate efforts with the public and private sectors to ensure a high degree of input for future freight planning activities, and in the development of a comprehensive freight planning process for the region.

e) Undertake public information efforts to inform the public on goods movement issues.

MAG's adopted policy for public involvement identifies opportunities for public input early in the process, during the planning process, and prior to final hearings. It is MAG's role and policy to obtain maximum public participation and input for each planning process and developed plan of local and regional significance. In the future, with regard to a comprehensive freight plan, MAG will undertake all relevant public information efforts to involve maximum participation by the public throughout each stage and development of the plan.

Question: Briefly outline major goods movement issues in the region.

The dominant mode of goods movement for the MAG region is truck transportation. As a result, one of the continuing regional freight issues will be the need for increases in highway capacity to mitigate congestion and improve traffic flow, thereby facilitating the efficient movement of goods. This includes enhancements to the existing roadway system, addition of new arterials, highways and freeways, and improvement and expansion of the Intelligent Transportation System (ITS). In particular, the impact of significant having truck movements in and around freeway service interchanges are an important issue. We will be encouraging cities and ADOT to consider high volumes at TI's that serve major freight and truck terminals in the design of arterial streets and interchanges. These measures will help to handle high volumes of truck traffic engaged in the movement of goods to, from, within and throughout the MAG region. In addition to truck transportation, issues involving access to, and the development of, air cargo facilities will require attention in the future. Also, as the region increases in population and economic activities expand, rail/highway conflicts and the need for rail transit services may be an increasing concern requiring attention. The RTP includes additional improvements along Grand Avenue to further reduce the rail-highway conflicts and improve traffic flow.

MAG will continue to assess regional freight issues, to refine its present base of knowledge, work toward the development of a comprehensive freight plan, and also build stronger coalitions and partnerships with the public and private freight sectors. Also, it is anticipated that future work on a more comprehensive freight plan for the region will result in further refined goods movement issues and approaches at both the micro and macro levels of regional concern. The ongoing involvement of the freight industry in an advisory capacity on freight activities and goods movement will assist in identifying key regional policies, and in the identification of ongoing freight-related concerns. The identification and refinement of such goods movement issues will continually be considered in the development of future updates of the MAG RTP.

ENVIRONMENTAL JUSTICE/TITLE VI

Consistent with Title VI of the Civil Rights Act and the Executive Order on Environmental justice, the MPO has certain outlined responsibilities to ensure that the process and outcome of the transportation planning process does not unfairly deprive of benefit, or unduly burden, any person based on race, income, or heritage.

The intent of Environmental Justice/Title VI is to ensure that communities of concern, defined as minority populations, low-income populations, aged populations, mobility disabled populations, and female head of household populations, are included in the transportation planning process, and to ensure that they may benefit equally from the transportation system without shouldering a disproportionate share of its burdens. MAG's Public Involvement Process was adopted in 1994, and enhanced in 1998 with greater input from Title VI and Environmental Justice communities. MAG addresses underserved populations in a number of ways. Whether it is through the Title VI Community Outreach Program, GIS mapping, the Human Services Division of MAG, or through programs administered by the Regional Public Transportation Authority (RPTA) using MAG funds, the needs of the underserved are considered. The results of those efforts demonstrate MAG's commitment to equity and environmental justice in the transportation planning process.

Question: Identify how the MPO addresses the elements listed below. Make reference to any adopted policy documents, regional public outreach policies or plans, examples of past public outreach, information, and involvement efforts, and other relevant documents.

Requirements/Expectations: The MPO must:

- a) **Does the MPO analyze regional data to identify minority and low income population concentrations within the region?**

MAG gathers, tracks, maps and analyzes diverse geographic, demographic, statistical and socioeconomic data. Much of these data involve demographic profiles of the region. Among the maps created by MAG include distribution of low income households (in poverty, per acre); distribution of population of racial minority status; distribution of population of Hispanic descent; distribution of population aged 60 years or older; distribution of population with disability/mobility limitations; distribution of female population; severe disability distribution by age; employment rate by disability status; Maricopa County population by age; household distribution by income range; and single parent households with children under 18.

- b) **The MPO should, where necessary, provide member agencies with regional data that assists them to identify minority and low-income populations in their subregion or service area.**

Regional and subregional maps depicting minority populations and low-income populations are on MAG's Web site. The data used to produce these maps is available upon request. MAG also has a Population Technical Advisory Committee made up of MAG member agency staff either from the planning department or city manager's office that participate in the MAG population-related activities, which includes identifying where minority populations and low-income populations are concentrated. Through the TIP programming process, MAG provides member agencies with a TIP Guidance Report that is used by member agencies to submit projects and to identify the areas in their subregions that require Title VI and environmental justice consideration. MAG also provides member agencies unlimited access to any databases that contain information related to minority populations and/or low-income populations.

c) **Does the MPO establish appropriate standards, measures, and benchmarks, and analyze the RTP, RTIP, and other MPO actions, plans, and investments to ensure they are consistent with, and do not violate, Title VI of the Civil Rights Act and the Executive Order on Environmental Justice?**

As noted above, in its role as the regional planning entity MAG gathers, tracks, maps and analyzes diverse geographic, demographic, statistical and socioeconomic data. These data are used to measure Title VI related impacts. Along with the maps created by MAG (detailed in Question A), additional studies include:

- The RTP, which was adopted by the MAG Regional Council in November 2003, underwent an extensive Title VI/Environmental assessment. This included defining communities of concern, locating and mapping these communities, and evaluating the effects of the RTP on these communities relative to the population in general.
- Special Transportation Needs Study. Completed by MAG in 1999.
- Travel Demand Management Survey. Conducted by WestGroup Marketing research for RPTA. One purpose of this study was to assess participation in Rideshare Programs. The survey tracked respondents by income, marital status and age. Of those who use transit, 23 percent make less than \$40,000 a year. Average commute is 12.4 miles.
- Environmental Analysis/Environmental Impact Statements and Preliminary Engineering Studies, prepared for all new freeway and Light Rail Transit projects. These studies address Title VI and Environmental Justice issues through identification of special populations and mitigation of disproportionate effects to Title VI and low-income populations. A public involvement program is initiated as part of the Environmental Analysis/Environmental Impact Statements and Preliminary Engineering Studies to maximize public involvement in the planning process.
- Public opinion surveys periodically compiled by MAG (such as the 1999 Household Survey of attitudes about Value Lanes and HOV Lanes) address public opinion by age, income and gender.
- MAG recently completed a Household Travel Survey to update travel data for the region. Professional surveyors from a research firm called 4,000 households in Maricopa County asking for participation in a travel survey. In the travel survey, randomly-selected participants completed a household survey over the telephone that profiles each trip maker. Participants are sent travel logs to chronologically log trips made by household residents for a 48-hour period. Income levels among households are measured as part of this survey, and are used to analyze differences in travel behaviors and patterns across income lines. The survey was conducted in Spanish for households in which Spanish is the primary language.
- City of Phoenix, Public Transit Department Title VI Update Report. Details distribution of minority populations, service impacts to these populations and mitigation efforts, including providing route information in Spanish as well as English, large print, Braille, and audio tape for the visually impaired. The report also details minority representation on policy-making boards including the RPTA Board of Directors and the MAG Regional Council. The report summarizes a level of service analysis that was undertaken by census tract. The analysis indicated a larger number of routes and greater frequency of service in minority census tracts than in non-minority census tracts.

Many of these measures were developed using Census and Special Census data and MAG modeling procedures. Some were developed by consultants with high levels of expertise in the public opinion/survey field. The interdisciplinary process relies heavily on public input, such as in the Travel Demand Management Survey, Environmental Analysis/Environmental Impact Statements, Preliminary Engineering Studies, and public opinion surveys.

- d) **The MPO should ensure that members of low income and minority communities are provided with full opportunities to engage in the regional transportation planning process. This includes acting to eliminate language, mobility, temporal, and other obstacles to allow them to fully participate in the process.**

MAG has made a concerted effort to engage members of low-income and minority populations through a variety of methods. During the early phase of the planning process, a targeted mailing is sent to a list of minority organizations, and follow-up phone calls are placed, to ensure that these communities are represented at the earliest point in the planning process. For development of the new RTP, a number of focus groups were held for several different minority groups to solicit input into the new Plan. During the mid-phase and final phase public involvement opportunities, display ads are typically placed in major minority publications such as “La Prensa Hispana,” a Spanish language publication, and the “Arizona Informant,” written for and about Arizona’s African-American community. Personalized letters of invitation are also sent to MAG’s identified Title VI mailing list. Press releases on all major MAG events are sent to four Spanish Language television stations, two Spanish radio stations and two Spanish newspapers, along with the Arizona Informant and other minority newspapers. A Spanish hotline is available for those who want information in Spanish.

In addition, MAG has hired a Community Outreach Specialist to serve as liaison to the minority community and engage the community in the planning process through making presentations, attending meetings and translating MAG policy documents, public involvement reports and press releases into Spanish. The specialist is also responds to requests from print and broadcast Spanish media outlets who may want interviews or other information on MAG’s planning process. The specialist has also created a MAG Web page in Spanish. MAG also hired a Community Outreach Associate for the community for people with disabilities. This associate is a contract employee that provides information on behalf of MAG to the disability community by making presentations, attending meetings and translating some of MAG’s materials into braille.

MAG also engages low-income and minority populations through its Human Services Program. Since 1981, MAG has worked in partnership with the Arizona Department of Economic Security (DES) to plan a portion of Arizona's Social Services Block Grant (SSBG) funds for populations that may be poor, unserved, underserved, elderly and/or disabled within Maricopa County. These funds are targeted to community-identified needs and attempt to fill service gaps identified by needs assessments and public input. The human services planning process provides many opportunities for public involvement, including two formal meetings each year.

- e) **Where appropriate, the MPO should monitor the activities of member agencies and other transportation agencies in the region regarding compliance with Title VI and environmental justice requirements.**

Title VI and EJ requirements are considered throughout the transportation planning process. MAG works with ADOT, Valley Metro/RPTA and Valley Metro Rail to ensure that the transportation planning process is coordinated and cooperatively developed where appropriate. Scoping studies,

project assessments, and environmental assessments consider the Title VI and EJ communities explicitly. And we have a concerted public involvement efforts to include these communities in the process.

MAG, its member agencies, as well as the other transportation agencies in the region are fully aware of the importance of engaging Title VI and environmental justice communities in the transportation planning process, and we often conduct joint activities to provide outreach to stakeholder groups, such as hosting booths at community festivals in which all agencies have a staff representative available to answer questions and when conducting public meetings and hearings. In the past, representatives from all of the above agencies have jointly participated in NEPA and other training programs sponsored by various state and federal agencies. While MAG works closely with its member agencies on transportation and public involvement issues, it does not have a formal process for "monitoring" the activities of other agencies in the region in regard to Title VI and EJ requirements.

f) Does the MPO evaluate the regional transportation system to ensure that services are accessible to person with disabilities?

ADOT and other MAG member agencies consider ADA requirements as part of the scoping and design process to ensure that projects are accessible. The MPO additionally complies with all ADA requirements in terms of its public involvement process. However, MAG relies on the state transportation department to meet ADA accessibility codes in constructing transportation infrastructure, on member agencies to build compliant street projects, and on the regional transit authority to ensure all transit services comply with the Act. The following response on this issue comes from the Regional Public Transportation Authority:

"We can certify that our (transit system) is accessible, and further that we have accessible complementary service as defined by the Americans with Disabilities Act (ADA).

Accessibility criteria is met through accessible buses and vans, accessible supervisory equipment, and in part by accessible stops as defined by law. In those cases where a stop is not accessible or the passenger cannot access the stop by virtue of their disability, that's were the complementary service steps in. We also have a regional certification process for those who wish to become ADA certified, including full, temporary, and conditional certification categories. We ask cities and towns to continually address ADA improvements when it comes to accessibility, including bus stop improvements, new stops, sidewalks, and other accessibility issues.

Our regional program is reviewed every three years (or more often) by the FTA as part of the Designated Recipient Triennial Review process; accessibility and ADA program are part of that review."

In 2001, the Maricopa Association of Governments created a MAG Elderly Mobility Working Group to address the needs of senior mobility in the region. This group included 75 representatives from transportation and social service agencies; retirement communities, elderly advocacy groups, faith-based organizations; health care; and city, county and state government. The Elderly Mobility Working Group developed the *MAG Regional Action Plan on Aging and Mobility*. The plan identifies 25 *Recommendations* for creating safe and enhanced mobility options in four key areas: Infrastructure and Land Use; Alternative Transportation Modes; Older Driver Competency and Education and Training. In March 2002, MAG hosted a *National Conference on Aging and Mobility*, which focused on the

transportation implications for seniors. Over 205 attendees from across the country and representatives from Canada, Australia and United Kingdom participated in the conference.

On-going implementation efforts include:

- Publishing *The Getting Around: A Transportation and Mobility Guide for Older Adults* in conjunction with Area Agency on Aging Region I.
- Producing a “*Get Strong – Feel Great*” senior exercise video under a grant from the Arizona Department of Health Services, Healthy Aging 2010 mini-grant program to encourage seniors to bike, walk and take the bus.
- Hiring a consultant to incorporate senior issues into the update of the *MAG Pedestrian Area Design Guidelines*.
- Working with the City of Tempe to design a new “*Life Options*” center for seniors at the Tempe Library.
- Coordinating “*America Moves Conference*” in 2003 and the “*Trails for All Ages Conference*” in 2004, addressing senior mobility needs.
- Coordinating the second annual *Senior Trails Day* with eight Valley cities and towns.
- Producing a cable television “*How to Ride the Bus*” for seniors in partnership with the City of Phoenix Transit Department.
- Designing the MAG Regional Bike Map with photos illustrating off-street network desirable for seniors.
- Working on a master resource web site that would illustrate all the transportation options available for seniors.
- Preparing a research report under contract with the Volpe Transportation Center on Accommodating Airport Terminal Needs for an Aging Population. Presenting subject at the Transportation Research Board and Massachusetts Institute of Technology Conferences.
- During the coming year, MAG staff will further efforts to adapt airport terminals for older adults by making a presentation at an International Conference on Transportation for the Elderly and Disabled in Hamamatsu Japan; and at the Association of Airport Executives National Conference in Las Vegas Nevada.

PLANNING FOR IMPROVING TRANSPORTATION SYSTEM SAFETY

Improving transportation system safety is a high priority goal in federal transportation legislation. MPO should seek to identify and address safety issues as part of the regional transportation planning process.

In 2000, MAG initiated the development of a Safety Planning Program by including Transportation Safety Planning as one of the planning areas in the FY 2001 Unified Work Planning Work Program. The first public event of the program was the Regional Transportation Safety Forum held in March of 2001. A Regional Safety Stakeholders Group was established in November 2001. Since then, MAG has been very proactive in developing the safety planning program. Some of the pioneering safety planning initiatives launched at MAG have led to similar activities being launched at the state level and in the Tucson metropolitan region. The Safety Forum has become an annual event that is held in conjunction with the annual conference of Arizona Institute of Transportation Engineers. Although the MAG Safety Stakeholders Group's focus is limited to road safety issues in the MAG region, establishment of the Group has met an existing need in the state for such a forum. The forum provides a table where road safety advocates from many disciplines may gather to discuss common issues and collaborative efforts. The Safety Stakeholders Group has acknowledged that regional efforts to improve road safety will require initiatives in the 4E's made up of Education, Engineering, Enforcement and Emergency Medical Services.

The commitment by MAG to develop the safety program is highlighted by the fact that a well qualified full-time Safety Analyst was hired for the program in 2002. The extensive experience and qualifications of the MAG safety team has enabled the program to launch a number of activities that have clearly benefitted both MAG members and other statewide agencies, and have helped create an increased awareness of road safety issues.

The success of all these efforts, through the MAG Safety Planning Program, have led to the recent establishment of a MAG Transportation Safety Planning Committee.

Some of the accomplishments of the Safety Planning Program are:

- Annual MAG Transportation Safety Forum typically attended by more than 70 individuals
- Established the Regional Transportation Safety Stakeholders Group
- Developed a Safety Action Plan
- Held a 3-day workshop on Safety Conscious Planning Practices
- Sponsored training - New Software Tools for Safety Analysis
- Sponsored workshop on Road Safety Audit Reviews
- Cosponsored the Statewide Safety Conscious Planning Forum

Question: Identify how the MPO addresses the elements listed below.

Requirements/Expectations: The MPO must:

- a) **Seek to identify safety issues on the regional transportation system.**

The Regional Transportation Safety Stakeholders helped draft a Safety Action Plan to identify safety issues and guide safety activities in the region. However, this Plan did not receive direct input from

crash data as no facility existed for crash data analysis at MAG. The development of a Regional Safety Management System capable of carrying out such analysis was identified in the Action Plan. In 2003, MAG began to identify safety issues in the region in a systematic manner utilizing the ADOT ALISS crash database for 1998-2002. Some data gaps in the database, such as lack of exposure data or traffic volumes, have been identified. MAG is coordinating with ADOT staff working on the Hazard Elimination Program to improve the database. A preliminary analysis of the 1998-2002 crash data was recently completed and is under review. While it is possible to carry out such an analysis periodically, it involves a large amount of repeated computations and data entry. The development of a Regional Safety Management System through a proposed FY 2005 project would directly address this need for systematic analysis and production of annual safety reports on the system.

b) Use information on identified safety issues on the regional transportation system to prioritize transportation investment in the RTP and the RTIP.

As mentioned previously, MAG has begun analyzing crash data pertinent to the region from the ADOT ALISS system. Some of the results of this analysis formed the basis for estimating safety consequences of future transportation alternatives. In 2003, for the first time in MAG history and perhaps at any MPO in the nation, safety consequences of transportation alternatives were estimated and presented as part of supporting information in the Regional Transportation Plan. Also, an adopted objective of the RTP was: provide a safe and secure environment for the traveling public, addressing roadway hazards, pedestrian and bicycle safety and transit security.

One feasible mechanism for including safety considerations in programming transportation improvements is to incorporate bonus points for projects that improved safety. MAG has begun to explore how this can be accomplished best starting with project selection for pedestrians and bicycles projects.

The MPO can also:

a) Collect and analyze accident and other data related to transportation system safety.

The state DOT is responsible for collecting crash data from local police agencies and MAG does not plan to be directly engaged in any crash data collection. However, the accuracy and integrity of the crash database, hence any conclusions drawn from it, depend on how well crashes are reported and recorded. Collaborative efforts may be launched between MAG and ADOT to improve the quality of crash data in the MAG region.

A project to develop a Regional Safety Management System is programmed in the Transportation Improvement Program for FY 2005. This is a regional project to be funded with state funds. Through recent informal discussions between ADOT and MAG staff an understanding has been reached that MAG would lead the development of this system as part of the FY 2005 Work Program.

b) Conduct specific safety related planning efforts in coordination with member transportation agencies, including mode specific injury and fatality planning efforts.

The need to address mode specific risk, injuries and fatalities was identified during the development of the Safety Action Plan. The most vulnerable of all road users are students who are either walking or biking to elementary schools. This was identified as a high priority area for safety improvement. Safe access to schools was addressed in 2003 by MAG through the School Crossing Guard Training

Workshop, co-sponsored with the City of Phoenix. Plans are underway to conduct a regionwide train-the-trainer workshop in FY 2005 on School Crossing Guard Training. This goal of this workshop is to provide access to this training to all elementary school districts in the MAG region. In March 2004, MAG held a mini-workshop on Road Safety Audits and Reviews.

c) **Undertake public information efforts to inform the public on transportation system safety issues.**

The MAG Transportation Safety Planning Web page and the email distribution list for the MAG Safety Stakeholder Group have been the primary means of communicating transportation safety information and issues. In addition, MAG's extensive community outreach and public involvement program provide frequent opportunities to distribute information on safety issues and obtain public input on safety concern. Also, initiatives identified in the Safety Action Plan address the need for better public information. The responsibility for such efforts are shared between state DOT, Governor's Office of Highway Safety and MAG.

PUBLIC OUTREACH AND INVOLVEMENT

Public involvement is a mandated core MPO activity that supports the development of all key MPO products, as noted above. Effective public involvement requires that the MPO seek the early engagement of a wide segment of the population of the region in the regional transportation planning process. It also requires that the MPO conduct directed outreach and information efforts to include certain identified populations to meet federal legislation, executive orders, and planning directives.

MAG follows an adopted public involvement process each year for the Transportation Improvement Program (TIP) and the Regional Transportation Plan. In addition to the formal adopted process undertaken each year, MAG recently completed an intensive public involvement effort to receive input into the new Regional Transportation Plan (RTP). This effort included more than 150 public input opportunities and nearly 180 stakeholder opportunities, including focus groups, panel discussions, special events, small group presentations, and numerous public meetings. Focus groups were conducted specifically for Title VI and Environmental Justice populations during the initial Plan development. In addition, five regionwide public workshops were held in the spring to receive early input into the Plan, and six regionwide public hearings/meetings were held to receive input on the Final Draft Plan. A Regional Town Hall was also conducted to receive input from leadership groups across the Valley. A special Web site was developed, www.LetsKeepMoving.com to provide information about the Plan, to receive feedback, and to conduct online surveys. Surveys were distributed at a variety of special events, including quarterly MAG at the Mall events, freeway openings, and Title VI oriented events such as Cinco de Mayo, Latino Institute programs, and Black History Month festivals.

During the development of the RTP, three scientific telephone surveys were also conducted to solicit input on residents' transportation priorities. This information was also used in Plan's development.

The RTP received the unanimous support of all MAG policy committees, including the MAG Regional Council and Transportation Policy Committee, as well as by the Arizona Department of Transportation, Valley Metro/RPTA (the region's transit provider) and a broad coalition representing Valley business interests. The Plan was endorsed by the National Federation of the Blind of Arizona and Arizona Bridge to Independent Living, a group dedicated to advocating for members of the disabled community, as well as by numerous other public and private sector organizations from around the Valley. The results of the input effort are presented in detail in the Regional Transportation Plan Input Opportunity Interim Report, Final Regional Transportation Plan Input Opportunity Report and in summary in the Regional Transportation Plan report. The answers provided below correspond to the yearly input process that MAG conducts, not the effort used during the development of the new RTP.

Question: Identify how the MPO addresses the elements listed below. Make reference to any adopted public outreach policies or plans, examples of past outreach, information, and involvement efforts, and other relevant documents.

Requirements/Expectations: The MPO must:

- a) **Does the MPO have an adopted public outreach and involvement policy and plan that clearly outlines the minimum requirements for public information and outreach and involvement, including required periods for comment, required public information actions, and identification of the actions to which the policy applies, such as adoption of the RTP, RTIP, and work program?**

The MAG Process for Public Involvement in Transportation Planning was adopted by the Regional Council in September 1994, after a 45-day comment period. The adopted process serves as the guiding principles for public involvement to meet the requirements established in ISTEA and subsequently reaffirmed in TEA-21. The process was enhanced in July 1998 to include a more proactive community outreach process consistent with federal directives. MAG operates a four-phase public involvement process: early phase, mid-phase, final phase and continuous involvement. The phases allow for early and continuing input and encourage public comment during each step of the planning process. MAG produces three public involvement reports detailing the comments received during the phases.

During the early phase, citizens are encouraged to provide input on issues of importance before a draft plan is developed. These comments are included in an input opportunity report, and a presentation given to policymakers regarding the input. During the mid-phase, a draft TIP or Plan is produced and comments recorded. Along with other opportunities for comment, this phase includes a public hearing where input is recorded verbatim by a court reporter. An input opportunity report is produced that includes all comments received during the phase, a transcript of the public hearing, and staff responses to comments. A presentation is given to policymakers summarizing the input. Comments are used to determine if changes are needed in the final draft plan. A similar process is followed during the final phase, including a final public hearing. Once again, comments are recorded verbatim and all comments and responses to comments included in an input opportunity report.

The input opportunity reports are provided to MAG policy committees for their review and consideration during the planning stages and during the final stages prior to adoption. This process was expanded for the adoption of the new RTP to include expert panel forums, focus groups and five public workshops at the early stages of the planning process, and six public hearings at the final stage of the planning process. As a result of the input received, two input opportunity reports were created and distributed to MAG policy committees for their review and consideration before approving the new Plan.

During the fourth phase, continuous involvement, MAG staff participates in numerous special events, including quarterly "MAG at the Mall" events where information is distributed and comments received. Other events include booths at community festivals and events such as Sunday on Central, Cinco de Mayo, and Black History Month. In addition, MAG provides small group presentations in which surveys are distributed and information collected.

b) The MPO should make efforts, consistent with the size, complexity, and diversity of the region, to inform the public of MPO meetings, public forums, documents for review, and other MPO activities where public input is required.

All of the formal public hearings and public involvement opportunities are announced with display advertisements in the largest circulation newspaper and in minority-oriented newspapers such as the *Arizona Informant* and *La Prensa Hispana*. Where appropriate, information is provided in a bilingual format. These ads are placed 15 to 30 days in advance of the events. During the final phase of the TIP development and Plan update, a public notice is also placed in *The Arizona Republic* 30 days prior to adoption.

Press releases announcing the events are prepared and distributed to local media prior to meetings. Notices of meetings are also sent to *The Arizona Republic* and Associated Press daybook editors, who place them on calendars which are published in the newspaper and via the wire service. Upcoming events are also noticed on the MAG Web site, in the monthly Regional Council Activity Report, and a

three-month calendar, as well as detailed stories about MAG contained in the quarterly newsletter “MAGAZine” (circulation 4,000). Other project-specific newsletters (including ITS, Homeless Planning, Domestic Violence, West Valley Rivers Project, etc.) are also distributed to stakeholders and concerned citizens.

An up-to-date mailing list is maintained that includes interested citizens, affected public agencies, representatives of transportation agency employees, private providers of transportation, advocates for low-income and minority interests, and representatives of community groups with an interest in transportation. Currently that list includes approximately 3,000 individuals and organizations. This mailing list is used to announce meetings, distribute newsletters, and for other opportunities for public involvement. Announcements are also distributed to public libraries throughout the region.

Meetings are conducted in accord with open meetings laws. MAG has a broad committee structure which involves technical professionals, administrative personnel, elected officials, business interests and citizen volunteers from every jurisdiction and many professions and interest groups. Committee meetings are posted and agendas are mailed not only to members of the committees, but to interested citizens requesting them.

As indicated above, MAG maintains a home page on the Internet which lists information about member agencies, existing committees, planning activities, recent accomplishments, information resource contacts, and published MAG documents. The Internet address is www.mag.maricopa.gov. A Spanish hotline has been established at (602) 452-5080 to assist Spanish-speaking callers. A Spanish language Web page has also been added to provide Spanish speaking people with information related to MAG’s transportation planning process.

- c) **The MPO should strategically focus efforts to inform low income populations and minority populations, and other groups that have not traditionally been as engaged in the regional transportation planning process of MPO activities.**

Through its public involvement process, MAG seeks to provide Title VI communities and low-income communities access to public information on, and an opportunity for public participation in, matters relating to human health or the environment, especially as they relate to MAG’s transportation plans and programs. MAG has hired a Community Outreach Specialist specifically tasked with engaging Title VI and low-income communities in the transportation planning process. The specialist attends meetings, provides presentations and solicits input from these communities. In addition, the specialist translates MAG policy documents, public involvement documents and press releases into Spanish for posting to the MAG Web site. The specialist responds to requests from Spanish language print and broadcast media outlets for interviews and other information related to the MAG planning process. Comprehensive stakeholder lists targeting individuals and organizations within the Title VI and Environmental Justice communities have been developed and notices of public meetings and other events are distributed to these stakeholders. While specific outreach depends on the project, focus groups and other targeted events are often held to receive input from low-income populations and minority communities.

MAG also hired a MAG Associate to work with the community to receive input from people with disabilities. This associate is a contracted employee who attends meetings, makes presentations and transmits materials to the disability community on behalf of MAG. The associate also translates MAG materials into braille for the vision impaired, and makes materials available in large print and audio formats.

d) Does the MPO make information, opportunities to respond and provide comment, and meeting times and places reasonably available to all members of the public?

MAG is aware that not all of the region's residents have the same schedule. MAG typically varies its meeting dates and times to accommodate as many people as possible in the transportation planning process. During a typical planning process, MAG staff will hold night meetings, day meetings, one-on-one consultations, provide small group presentations, staff a booth at large community events and freeway openings, staff a booth at the mall on the weekends and is available weekly by appointment, telephone and online. During major plan updates, MAG also holds meetings in venues around the region so that residents do not have as far to travel. Videoconferencing and audioconferencing opportunities are also made available for many MAG meetings, where citizens or stakeholders can attend at a videoconferencing location closer to their homes or dial in via audioconference.

All public comment received during the planning and program development process is contained in the Early Phase Input Opportunity Report, Mid-Phase Input Opportunity Report, and Final Phase Input Opportunity Report. Responses from MAG are provided to all comments received during the mid-phase and final phase. In addition, public comment periods are provided at every MAG meeting. Summaries of input are given publicly at MAG meetings during each phase of the process. All input opportunity reports are made available on the MAG Web site (where feedback is encouraged) and are provided to and on display at 13 regional libraries. The reports are also available for review in the MAG library on the third floor of the MAG offices.

e) The MPO should make efforts to organize and present information in a format that can be easily understood, and that clearly focus on the key issues and alternatives under consideration.

MAG makes a concerted effort to ensure that the transportation planning process is clearly explained and outlined during any public involvement activity. All material designed to solicit public input is written and edited for clarity and translated into alternative formats such as Spanish and braille. Project-specific brochures and easy-to-read fact sheets are also produced. Collateral materials may include such items as door hangers, fliers, color maps, and facts-at-a-glance. MAGAZine articles are written in a manner to be understood by the general public, including those completely unfamiliar with the organization.

In addition, MAG staff is always available to answer questions. Contact names and numbers are posted in publications and during presentations, and are included on every project page online. Staff is always available by e-mail, telephone, and/or appointment to discuss any questions or comments citizens may have regarding the transportation planning process.

f) Does the MPO make efforts to periodically evaluate the effectiveness of the public involvement plan and outreach efforts, to ensure that public outreach efforts are addressing the diverse needs of the community?

The MAG Process for Public Involvement in Transportation Planning was adopted by the Regional Council in September 1994, after a 45-day comment period. The process was enhanced in July 1998 to include a more proactive community outreach process consistent with federal directives. MAG has since evaluated the public involvement process and, in 2003, sat down with Valley residents in an informal effort to review and clarify MAG public comment procedures. As a result of that meeting, the adopted process for receiving public comment at MAG policy committee meetings was also

implemented at the technical committee level, to ensure a uniform public comment process at all committee levels. MAG's public involvement staff continues to listen to issues expressed by residents and to explore new ways of conducting its public involvement program, which includes analyzing public involvement trends and attending training to better communicate the transportation planning process to the residents of the region.

g) The MPO should provide a clear process that demonstrates how public comments are considered in the regional transportation planning process.

MAG has an adopted public involvement process that includes four phases: early phase, mid-phase, final phase and continuous involvement. The adopted process outlines the phases, when they typically occur and at what point MAG policy committees typically take action. The phases are also clearly defined and communicated in MAG policy documents and public involvement reports.

In addition, MAG provides formal responses to comments and questions during the mid-phase and final phase for inclusion into public involvement reports. These reports are available to the public and are provided to MAG policy committees for review and consideration in the transportation planning process. During development of the new RTP, MAG conducted scientific and unscientific surveys of residents across the region. Among the objectives of these surveys was to solicit transportation priorities from the region's residents. In the end, MAG's policy committees used these surveys, as well the results from additional public involvement efforts, to form the Regional Transportation Plan. There are many examples in the Plan in which citizen input directly resulted in transportation investments.

In terms of public comment procedures, printed guidelines outlining MAG's public comment process are available at every meeting where public comment is heard.

COORDINATION WITH INDIAN TRIBAL GOVERNMENTS

Where Indian Tribal Governments exist within, or adjacent to, the MPO region, the MPO is required to seek regular communication, coordination, and access for those representing Indian Tribal Governments on regional transportation planning and programming issues.

Avenues for consultation with Native American Tribal Governments have been established in the MAG region and have been utilized to address a broad range of issues. Native American communities are members of MAG and participate directly of the decision-making process. In addition, MAG works cooperatively with the Bureau of Indian Affairs.

Question: Identify how the MPO addresses the elements listed below. Make reference to any adopted policies or plans, examples of past outreach, information, and involvement efforts, and other relevant documents.

Requirements/Expectations: The MPO must:

- a) **Identify Indian Tribal Governments that are located within, or adjacent to, the metropolitan planning area of the MPO.**

There are three Indian Communities located within the MAG region – the Gila River Indian Community, the Salt-River Pima-Maricopa Indian Community and the Fort McDowell Yavapai Nation; and a fourth community, of which small parts are located in the MAG region, is the Tohono O’Odham Nation.

- b) **Undertake efforts to establish communication and coordination with Indian Tribal Governments on regional transportation planning and programming issues on a regular basis, and in response to key issues which may impact Indian Tribal areas.**

Indian communities are directly represented in the decision-making process. The Gila River and the Salt River Pima-Maricopa Indian Communities have voting representatives on the MAG Regional Council, and their respective governing bodies have approved resolutions joining MAG. An invitation for membership has been made to the Fort McDowell-Yavapai Nation and they are currently considering joining MAG. These communities are represented on the MAG Management Committee and various technical and policy committees throughout the MAG structure. A specific position on the Transportation Policy Committee is designated for a Native American Community representative (Gila River Indian Community pending). In addition to membership in MAG, state law requires MAG to specifically consult with the Native American communities in the county on the preparation and amendment of the Regional Transportation Plan.

Between February 2001 and January 2002, MAG hired a Community Outreach Associate specifically tasked with providing outreach to the Native American Indian communities. This associate was tasked with developing an outreach plan to the community and to provide stakeholder databases that could be used on an ongoing basis by MAG. These lists are frequently utilized by our full-time Community Outreach Specialist to provide information and materials regarding MAG policies and programs to the Native American Indian communities.

- c) **Make information and documents available to representatives of Indian Tribal Governments as needed.**

The two Indian communities that are members of MAG receive all documents that MAG distributes to its member agencies at each point of the planning and programming process. These documents include any and all transportation plan updates, draft plans and final plans. Any supplemental information requested by the Indian communities is also provided free of charge. Should one of the Indian communities not affiliated with MAG request any information regarding MAG's plans and programs, MAG would furnish the information upon request, free of charge. As noted above, information is also distributed to our public involvement list, including the Native American Indian community stakeholder lists developed by the MAG associate in 2001-2002.

d) Develop and apply clear outreach and coordination procedures to facilitate and implement coordination and communication with Indian Tribal Governments.

As part of the TIP programming process, MAG works cooperatively with the Bureau of Indian Affairs to submit projects on behalf of the MAG member Indian communities that utilize federal funds designated for tribal lands. These projects are cross-checked by MAG to ensure compliance with applicable regulations and policies and are added to the TIP for eventual approval following an air quality conformity analysis. As part of MAG's transportation public involvement program, MAG hired a Community Outreach Associate for the Native American Indian Community who developed an outreach plan that is still being implemented. Since that time, MAG has hired a full-time Community Outreach Specialist to work with minority communities and low-income populations. The specialist meets with these communities, provides presentations and solicits input on MAG's transportation plans and programs. The Indian communities are included in this outreach.

TRANSPORTATION SYSTEMS ANALYSIS AND MONITORING, INCLUDING CONGESTION MANAGEMENT SYSTEM

A primary responsibility of the MPO is to conduct transportation system analysis to evaluate system performance and identify current and future system deficiencies to be addressed through the regional transportation planning process. This ensures that, to the greatest degree possible, investments are made based on a systematic, objective, and comprehensive evaluation of the regional transportation system. This activity also includes strategy evaluation to understand the system wide impacts of the implementation of identified transportation strategies and investments. Specifically mandated for TMA's is the development of a Congestion Management System (CMS). The CMS is required to identify transportation system congestion based on locally identified standards. Further, the CMS should identify transportation investments and policies for inclusion in the RTP to address identified congestion.

MAG is a leader among MPO's with respect to evaluating the transportation system performance. MAG has a comprehensive database of existing travel conditions and a travel demand model that FTA found consistent with best practice. The database enables MAG to identify current system deficiencies and the model lets MAG forecast future system deficiencies and understand the impacts of the implementation of identified transportation strategies and investments.

Question: Identify how the MPO addresses the elements listed below.

Requirements/Expectations: The MPO must:

- a) Based on available resources, develop means of analyzing and evaluating transportation system performance. This can be undertaken in partnership with member agencies or other regional transportation planning organizations.**

MAG has a long history of developing and refining tools for analyzing and evaluating transportation system performance. MAG developed the first version of its current Travel Demand Model in 1984. This model has been refined and updated every year since it was developed. The current platform for the model is the EMME/2 travel demand modeling system, which was installed in 1995. The model is accepted by all of the MAG member agencies and has been used in hundreds of highway, transit, and air quality studies. These studies include the planning and design for 160 miles of freeways plus ongoing planning for 60 miles of future freeways. This same model was used to forecast ridership for the first 20 miles of the Valley Metro Rail system and it is being use to forecast ridership for possible light rail extensions. MAG is also using this model to study the impact of regionally significant development in the Valley.

In order to support the many transportation studies needed in the MAG region, MAG regularly commissions studies to determine existing conditions. These studies measure demand and level of service. MAG has used aerial photography to measure traffic density on freeways and queues on surface streets. Traffic density has proven to be a good method of observing the level of service on the freeway system and identifying bottlenecks. MAG has also used GPS to measure travel speeds and delays on major roads. These travel speed studies have proven to be an excellent way of observing congestion on arterials. In addition, MAG has built a 2002/2003 traffic volume database that contains 2,440 directional traffic counts.

- b) Ensure that system analysis and performance evaluation supports, and is strongly linked to, the regional transportation planning process and the development of the RTP and the RTIP.**

The MAG Travel Demand model is used for planning and design of all major highway and transit improvements in the region. The improvements that result from these studies are then input into the model networks. The RTP process used the model to analyze system-level alternatives, evaluate planned projects, and assess priorities. The RTIP uses existing and future traffic volumes to prioritize projects. The same model and base data are then used in the TIP Guidance Report. Since the MAG model is used to evaluate all major transportation projects in the region, projects are evaluated on a uniform basis and system performance is reported consistently.

To facilitate this process, the performance measures that were adopted as part of the RTP process were programmed into the model so these measures are estimated each time the model is executed and saved in a file. By using this methodology, alternative scenarios can be compared rapidly and consistently.

- c) Develop and apply a Congestion Management System (CMS) that meets the requirements of 23 CFR 450.320 and 500.109.**

The MAG Regional Council approved the Congestion Management System on August 28, 1994, and has taken actions to update portions of the document on two occasions since then. The CMS meets all of the requirements of 23 CFR 450.320 with regard to development of the CMS; the programming of single occupant vehicle projects; travel demand and operational management strategies; and through an annual evaluation of the region's transportation systems and facilities.

It also conforms to the requirements of 23 CFR 500.109 in that consideration is given to strategies that provide the most efficient and effective use of existing and future transportation facilities. In particular, prior to programming additional general-purpose lanes, consideration is given to including features, such as ITS capabilities, that facilitate future demand management and operational improvement strategies.

In producing the TIP Guidance Report, MAG monitors and evaluates the performance of the transportation system and, as part of the continuing improvements to the regional transportation model, continues to measure and evaluate the extent of the congestion.

The region annually updates the number of local roads added to the system and monitors the performance of the system through a traffic counting program for sample routes and periodic system-wide updates of the Regional Congestion Study. When programming transportation projects, consideration is given to the full range of transportation options. The region has recently completed the Regional Transportation Plan, which included the evaluation of regional performance measures. The results of the evaluation of these performance measures will be available for consideration during the development of the RTIP.

- d) Ensure that the CMS supports, and is strongly linked to, the regional transportation planning process and the development of the RTP and the RTIP.**

The MAG CMS was developed specifically to support the transportation planning process and is used as an integral part of the RTP and TIP development process. The CMS contains two major components and these can be generally described as Technical and Policy input. The policy inputs are derived from many different sources, including federal regulations and local policies that guide the programming of

regional, local, federal, and state funds. Technical inputs are also obtained from a variety of sources such as the regional traffic model, direct traffic counts, the results of other modal management systems and modal rating systems.

e) **Ensure that new SOV highway capacity projects are evaluated through the CMS before inclusion in the RTP and RTIP.**

All projects that add or delete SOV highway capacity projects are evaluated through the CMS before inclusion in the RTP and RTIP. For example, all projects that are submitted for consideration for inclusion in the RTIP are rated by the CMS Rating system and these CMS scores are displayed, where appropriate, in the RTIP document.

The MPO can also:

a) **Fund and/or oversee the collection of transportation system performance data.**

MAG conducts data collection and analysis studies on a regular basis to develop various means of analyzing system performance. These studies include: 1) 2003 Traffic Volume Inventory, 2) 2003 Travel Speed Study, 3) Freeway Bottleneck Study, 4) 2001 Household Travel Survey, 5) Travel Demand Model Update, and 6) Transportation GIS Study.

The 2002/2003 Traffic Volume Inventory contains 2,162 directional traffic counts on arterials and 278 directional counts on freeways. Of these counts, 122 are also classification counts. All of the counts were collected for two days in fifteen-minute intervals. These counts provide the basis for analyzing traffic in the MAG region.

The 2003 Travel Speed Study measure travel speeds on 1,800 centerline miles of major streets and highways in the MAG region. This study includes virtually all freeways and arterials that suffer congestion on a regular basis and a sample of freeways and arterials in outlying areas. This study provides the basis for understanding regional congestion patterns.

The Freeway Bottleneck Study collected freeway traffic density data, assembled traffic volume data, and analyzed the region's freeways as a system to identify major bottleneck areas. A macroscopic freeway corridor simulation program (FREQ12PE) was then used to analyze the bottlenecks and determine how to mitigate the congestion on these segments. The Freeway Bottleneck Study also analyzed ways to address future freeways and arterials congestion.

The 2001 Household Travel Survey was conducted to provide a basis for updating the calibration of MAG's Travel Demand Model. This survey collected travel, vehicle, and household information from 4,000 households.

The Travel Demand Model Update is aimed at continuing to refine MAG's forecasting tools for analyzing future travel demand. The Transportation GIS Study will provide enhanced capabilities to relate the various transportation database elements, plus geographic and socio economic information.

In addition, MAG is working with ADOT to create a network of permanent count stations on the MAG freeway system that provide continuous traffic data. These stations will be located every three to four miles on the freeway system and will provide continuous volume, speed, and classification data, which

will be very useful for monitoring the growth of traffic volume and congestion on the MAG area freeways.

MAG will also conduct a regional travel vehicle occupancy study in FY 2005 to assess the use of HOV lanes and improve our knowledge of traveler behavior affecting ride-sharing on freeways.

b) Perform transportation system analysis using transportation models or other transportation system evaluation software or technical tools.

The MAG Travel Demand Model and other software are used extensively in the region for project-level and system-level analysis. For example, in 2003 the MAG travel forecasting staff supplied travel demand information to 15 MAG member agencies for 75 studies. These studies include freeway planning and design, arterial planning and design, transit planning, and air quality planning. A sample of the specific studies to which the model was applied include: the Regional Transportation Plan, the Bottleneck Study, the I-10 Corridor Improvement Study, the South Mountain Corridor Study, the Metrocenter Corridor Project, and the Estrella Freeway Design Concept Report. Freeway bottlenecks were studied using FREQ12PE in the MAG Bottleneck Study. ArcView is frequently used to determine transit service areas and review the coding of freeway and arterial networks. A microscopic simulation program (VISSIM) was obtained as part of the Grand Avenue Corridor Study to facilitate the analysis of congested traffic near complex intersections.

c) Develop, enhance, improve, and otherwise work to make transportation models and other analysis tools a more effective part of the regional transportation planning process, and more representative of current professional practices and standards.

The MAG Travel Demand Model is a complex, “four step” model that has been continuously refined to address many of the issues that face MAG. It models traffic by time of day for HOV lanes, HOT lanes, and trucks. The model also has extensive transit capabilities and includes six modes of transit: walk access and drive access for local bus, express bus, and light rail.

The FY 2005 MAG Work Program has two projects to enhance MAG’s models and analysis tools. First, there is a project to update the calibration of the MAG Travel Demand Model so the model reflects current travel behavior. Tasks will include recalibrating the trip generation, trip distribution and mode choice models, as well as many of the supporting submodels. This project will apply the travel data studies MAG has conducted in the last few years. Second, there is a project to develop a transportation related Geographic Information System (GIS) that will support transportation planning. The GIS will provide a comprehensive integrated inventory of the regional transportation system. This inventory will include the TIP, the RTP, traffic counts, travel speed data, transit data, and many other transportation items.

INVOLVEMENT/INTERACTION WITH POLICY BOARD

The goal of federal transportation planning legislation is to build a consensus among locally elected leaders and agency officials on a regional transportation plan that meets the long-term multimodal transportation needs of the region and is consistent with federal transportation legislation. This group constitutes the MPO Policy Board. MPO staff must engage, inform, advise, and be guided by the decisions of the policy board as the regional transportation planning process unfolds.

The MPO Policy Board consists of 31 members, 25 cities/towns, Maricopa County, two Native American communities, two representatives from the Arizona Department of Transportation (ADOT) and a representative from the Citizens Transportation Oversight Committee (CTOC). This includes the Governor of the Gila River Indian Community, the President of the Salt River Pima-Maricopa Indian Community, a Supervisor from the Maricopa County Board of Supervisors, two representatives from the Arizona Department of Transportation (ADOT), State Transportation Board and one representative of the Citizens Transportation Oversight Committee (CTOC). ADOT and CTOC serve as ex-officio members for transportation-related issues.

Planning and policy efforts are also closely coordinated with the Regional Public Transportation Authority (RPTA). For example, the City of Phoenix contracts for the operation of the bus system, the future light rail system and is represented on the MAG Regional Council. The City of Phoenix also operates the regional airport. In addition, members of the RPTA Board sit on the MPO Policy Board.

The Regional Council formed the Transportation Policy Committee (TPC) to assist in the development of the Regional Transportation Plan and continuing transportation planning efforts. The TPC was structured to include a broad representation of groups and interests throughout the region and was initially charged with developing a plan that addresses the diverse transportation needs in the MAG area.

The TPC consists of a twenty-three member committee that includes five representatives from the business community, thirteen local governments, one freight, one CTOC, State Transportation Board, and Maricopa County representative, and one Native American Indian Community representative (Gila River Indian Community pending). The TPC makes its recommendations to the MAG Regional Council, which takes final action to adopt transportation plans and policies. Many members of the TPC are also members of the MAG Regional Council, which ensures close communication and interaction between the two groups. One of the key goals behind formation of the TPC was to build a strong consensus not only among locally elected leaders and agency officials, but the community as a whole, on a regional transportation plan that meets the long-term multimodal transportation needs of the region. This effort paid off in the form of a unanimous recommendation of the RTP by the Transportation Policy Committee and unanimous adoption by the Regional Council.

Question: Identify how the MPO addresses the elements listed below.

Requirements/Expectations: The MPO must:

- a) **Inform the MPO Policy Board of transportation system performance issues, as well as major transportation, air quality, financial, environmental, and other challenges and issues facing the region that are consistent with the mission of the organization under federal transportation legislation and any applicable State or locally mandated organizational missions.**

The MAG Regional Council and the Transportation Policy Committee hold monthly meetings at which they receive briefings on transportation, air quality, financial, environmental and other challenges facing the region. Based on extensive background information and thorough discussion of issues, action is taken on items as needed to ensure consistency with MPO and other regional transportation planning requirements under federal and state legislation.

A full range of issues is considered, including regional growth and development, transportation plan development and updating, plan implementation through the transportation improvement program, and air quality conformity. Periodic reports on the status of construction projects, system performance, transportation revenues and environmental issues are also provided. In addition, workshops are held on specific topics to provide the opportunity for the intensive review of key concerns, maximizing the ability to assess issues in an interactive environment.

Members are provided with written background materials relating to discussion topics, allowing them to review issues prior to meetings. In addition to conventional mailings, this material is e-mailed and also posted on the MAG Website, allowing rapid and broad distribution of relevant data and information. This allows efficient use of meeting time and also enables members who may not be able to attend to continue to be informed regarding key issues. In addition, MAG offers videoconferencing for meetings, which enables members with long travel distances and/or tight schedules to participate when they might not have been able to otherwise.

b) Identify and analyze alternative investment strategies and transportation and growth management policies that can address the identified issues and challenges for the region.

The identification and assessment of transportation investment strategies were focal points of the RTP development process. MAG policy committees were intimately involved with the development of transportation system alternatives, which were evaluated by using performance measures. The alternatives were structured to provide insights into the tradeoffs associated with different transportation investment strategies. Based on the results of the alternative evaluations, a hybrid alternative was defined. This scenario was modeled, evaluated and refined further. Based on this analysis, a final hybrid plan was developed and evaluated to provide the basis for a plan for adoption. The final hybrid plan scenario was defined in terms of elements for implementation and phasing, including potential funding mixes.

Approaches to growth management have also been a continuing topic of consideration by MAG policy committees. In Phase I of the RTP planning process, a series of growth scenarios were developed and analyzed to provide insights on their transportation impacts. The transportation impacts of the scenarios were identified and compared, providing an assessment of the advantages and disadvantages of various development strategies. Another growth management program addresses the compilation of information on regionally significant development projects. As part of this effort, MAG member agencies are provided information on the regional transportation costs of significant development projects. In addition, MAG is exploring programs aiming at minimizing cross-region travel demand by developing sub-regions that are as self-sufficient as possible, both in terms of their economies and also in terms of a housing mix that is affordable for occupations needed by sub-regional industry clusters, thus minimizing travel distance and commuting time.

c) Ensure that the MPO Policy Board receives and considers public comment provided during public involvement efforts.

In September 1994, the MAG Regional Council adopted a public involvement process for receiving public opinion, comment and suggestions on transportation planning and programming in the MAG region, which is in accord with TEA-21 requirements. This process provides complete information on transportation plans, timely public notice, full public access to key decisions, and opportunities for early and continuing involvement in the planning process. The public involvement process is divided into four phases: early phase, mid-phase, final phase and continuous involvement. Both written reports and presentations are provided to convey results to MAG committees.

The early phase meetings ensure early involvement of the public in the development of these plans and programs. The early phase input opportunity is generally conducted from August through October.

The results of these meetings are included in an *Early Phase Input Opportunity Report* that is distributed to Regional Council members for their review and consideration in the planning process.

The mid-phase process provides for input on initial plan analysis for the draft TIP and RTP, and includes a public hearing on regional transportation issues. The mid-phase is generally conducted from the middle of January through March. The results of the mid-phase input opportunity are included in a *Mid-Phase Input Opportunity Report* that is distributed to Regional Council members for their review and consideration in the planning process.

The final phase provides an opportunity for final comment on the TIP, RTP and Air Quality Conformity Analysis, and generally occurs upon the completion of the air quality conformity analysis in the summer. The results of the final phase input opportunity are included in a *Final Phase Input Opportunity Report* that is also distributed to Regional Council members for their review and consideration before making any final decisions in the planning process. In addition, continuous outreach is conducted throughout the annual update process and includes activities such as presentations to community and civic groups, distributing press releases and newsletters, and coordinating with the Citizens Transportation Oversight Committee (CTOC).

During the development of the Regional Transportation Plan, MAG held more than 150 public input opportunities, nearly 180 stakeholder opportunities (which included focus groups involving minority and senior travelers and several safety forums) and 117 agency meetings to solicit input from the public, community groups, business associations, transportation stakeholders, elected and appointed leaders, city planners, municipal technical staffs, transportation councils, and the regional Indian Communities. In many cases, members of the TPC or the Regional Council attended these events. The results of these input opportunities were reported to MAG policy committees and considered in the development of the RTP.

On March 28, 2003, MAG conducted its first annual Regional Town Hall to address transportation issues and priorities. The MAG Regional Town Hall invited more than 500 individuals representing leadership groups from communities across the region. Approximately 150 people registered for the event, and, among other exercises, were asked how they would decide to distribute or allocate future funding toward a variety of transportation needs. Input received from this item, as well as a range of input on other transportation issues, was reported to MAG policy committees and evaluated as part of the RTP process.

COORDINATION/PLANNING FOR INTELLIGENT TRANSPORTATION SYSTEMS (ITS)

Intelligent Transportation System (ITS) technology has the ability to improve transportation system performance and should be evaluated as part of the regional transportation planning process. Where used, to maximize the value of the investment and to optimize system performance, technological and organizational issues should be coordinated among the agencies in the region, and wherever possible, coordinated with the appropriate parties in adjoining regions.

The MAG ITS Program is recognized as one of the most progressive MPO ITS programs in the nation. The primary functions of the ITS program is to carry out ITS infrastructure planning and the recently commenced activity of ITS operations planning. The level of active participation in the program by MPO members is quite high. All ITS planning activities at the MPO is overseen by the MAG ITS Committee, that is comprised 19 members representing FHWA, Arizona Department of Transportation, Department of Public Safety, Arizona State University, Sky Harbor Airport and 14 MAG member agencies. The committee meets monthly to discuss and make decisions related to ITS in the region. More detailed technical discussions on issues related to traffic operations in the region are carried out by working groups that continue to function under the AZTech banner, named after the USDOT ITS Model Deployment grant to the region. Any infrastructure issues and needs that these groups identify are brought forward to the MAG ITS Committee.

Question: Identify how the MPO addresses the elements listed below.

Requirements/Expectations: The MPO must:

- a) **Clearly identify ITS investments in the Regional Transportation Plan so that MPO membership and the public can understand the nature and level of investment in ITS strategies and technology.**

The role of ITS, and ITS related investments in regional transportation planning are identified in the comprehensive 2001 MAG ITS Strategic Plan. The regional ITS architecture was also developed. A comprehensive electronic presentation on ITS was developed and distributed to all MAG member agencies upon completion of the Strategic Plan. Staff at MAG member agencies have utilized this and other presentations on ITS to inform elected leaders and citizens on ITS projects and products. Other means of informing MPO membership and the public is via informational displays at public meetings, presentations to local agencies and the MAG website. One of the projects identified in the ITS Strategic Plan called for the development of an ITS outreach program. This project is expected to be launched within the next two months and will further address this requirement.

In addition, an entire chapter in the RTP is devoted to transportation system management. This chapter describes the role, importance and investments in ITS for the regional transportation system and provides a further vehicle for informing and educating MPO members and the public.

- b) **Work to promote communication and coordination among member agencies and other organizations involved in the design, funding, implementation, and operation of ITS in the region.**

The MAG ITS Committee meets monthly to provide a forum for communication and coordination among member agencies and other organizations. Starting in January 2004, the MAG ITS Committee has begun to focus on ITS Infrastructure Planning and ITS Operations Planning on alternate months. This change to the process was based on a recommendation that resulted from the development of a Regional Concept of Transportation Operations.

c) Comply with Regional Architecture requirements to ensure proper consideration of regional integration needs.

MAG developed the regional ITS architecture prior to it becoming a USDOT requirement for all metropolitan regions. The regional architecture addresses both current integration needs and also accommodates smaller cities and towns in the region that will become part of the regional system in the future. A project to be launched in FY 2005 will update the regional architecture to ensure that some of the newer developments such as the Light Rail project and the Enhanced 511 system are incorporated in the architecture.

d) Develop ITS projects using a systems engineering process, including concept of operations, functional requirements, identification of agencies, roles, and applicable standards, alternative analysis, procurement operations, and systems operations and management.

The use of a systems engineering process in developing all ITS projects has been encouraged by MAG. Nearly all member agencies have participated in a FHWA sponsored training workshop held in the region. MAG has developed a Regional Concept of Transportation Operations linking planning and operations and is currently engaged in implementation.

REGIONAL COORDINATION

Transportation facilities and inter-regional travel patterns frequently cross regional boundaries. Coordination on facility and regional planning, comparison of planning work programs, regional plans, and TIPs, and general communication provides for a greater degree of consistency in transportation policy and facilities design and development.

The MAG area is increasingly becoming part of a larger multi-regional complex. South and east of the MAG area, growth is accelerating in northern Pinal County. Recent forecasts anticipate a population of 917,000 in this area by 2025. Similarly, growth is beginning to extend from northwest Maricopa County into adjacent areas in Yavapai County. In addition, growth in southern Pinal County and northern Pima County is beginning to merge, leading to two-county development coverage in that area. Growth in central Pinal County, which is half-way between the Phoenix and Tucson areas, is accelerating in the Casa Grande and Maricopa areas. While development between the Phoenix and Tucson metropolitan areas is by no means continuous, the infill of this space is clearly proceeding at a steady pace. As this “mega-region” emerges, the need to coordinate transportation and land use planning will be come increasingly important.

Questions: Identify how the MPO addresses the elements listed below.

Requirements/Expectations: The MPO must:

- a) **Seek to promote communication and engage in regular coordination with adjacent regions and other government agencies outside the MPO boundaries on transportation issues and MPO products and activities.**

Regular coordination and communication with adjacent regions and jurisdictions have been a priority with the Maricopa Association of Governments. There have been a number of undertakings to enhance communications and work cooperatively on common planning issues. This is a continuing process and will become increasingly important as growth continues. For example, the City of Apache Junction, which lies in Pinal County just east of the City of Mesa, has participated in MAG planning activities for many years and is now a full member of the organization. Similarly, MAG has worked closely with Pinal County on a continuing basis to address air quality issues affecting both the Pinal and Maricopa County areas. Also, staff from MAG, the Pima Association of Governments (PAG), and the Central Area Association of Governments (CAAG) meet periodically to confer on common issues affecting their regions. MAG also participates in regular Council of Governments (COG) Directors meetings, which bring together all Arizona COGs to discuss key concerns from around the entire state.

In addition to coordination efforts, MAG has recently worked closely with CAAG and ADOT on a two-county transportation and modeling study. The Southeast Maricopa/Northern Pinal County Area Transportation Study was undertaken to address the transportation linkages between the two counties, which will become increasingly important as growth in the area merges travel patterns into a single matrix. The purposes of the study were to foster inter-county planning, document the transportation relationships between Maricopa and Pinal Counties, examine the long-range transportation needs of the study area, and identify projects to address the area needs. The final report from the study has been used extensively as a basis to proceed toward specific corridor studies. One of the highlights of this cooperative effort was a study wrap-up meeting of elected officials from the two-county area. This included mayors and county supervisors from southeast Maricopa County and northern Pinal County, as

well as ADOT State Transportation Board Members. This session resulted in an extensive discussion of the issues and possible approaches to addressing problems facing the two-county area.

Another aspect of the close cooperation between MAG and CAAG has been in the area of transportation/population/employment forecasting and modeling. The MAG transportation modeling region extends into Northern Pinal County. The extension of modeling was necessary in order to understand the regional transportation implications of population growth outside of Maricopa County. In addition, the extended model was applied in the Southeast Maricopa/Northern Pinal County Area Transportation Study. As a part of this modeling process, projections of population, households and jobs in Pinal County were needed in order to estimate future travel demand. Working with CAAG and other local public agencies in Pinal County, MAG assembled databases and compiled placeholder projections. Based on this joint forecasting effort, the Pinal County portion of the MAG transportation modeling area is projected to grow from approximately 150,000 people in 2000, to approximately 917,000 by 2025. Total employment in the area is projected to grow from approximately 45,000 to 201,000 in the same period. This expanded model was used for all of the modeling for the new RTP.

During this past year, MAG participated in a peer review of socioeconomic models and modeling practices for the Pima Association of Governments (PAG). Representatives from six Councils of Governments and/or Metropolitan Planning Organizations were present. Each COG or MPO presented their modeling practices to PAG and to others. The informal feedback was that MAG had an excellent modeling process, especially with respect to the Information Manager components, although other recent models also warrant evaluation.

Since that time, MAG and PAG have committed to partnering and combining resources to create a socioeconomic model that will combine the best of MAG's current models (information management, editing, GIS interface, mapping, analysis, etc) with the best of a national socioeconomic model, UrbanSim (market driven, fiscal variables including cost of land, etc), developed by Professor Paul Waddell at the University of Washington. The Central Arizona Association of Governments is also committed to this partnership, and the majority of the other Councils of Governments and Metropolitan Planning Organizations in Arizona are, at this time, partnering on the needs assessment component. In addition, the Arizona State Land Department has also indicated a possible interest in extending the model to other parts of the state.

b) Seek formal consultation with Native Americans Tribal Governments on relevant issues and products, where appropriate.

Avenues for consultation with Native American Tribal Governments have been established in the MAG region and have been utilized to address a broad range of issues. The Gila River Indian Community and the Salt River Pima-Maricopa Indian Community are members of MAG, and sit on the MAG Regional Council, Management Committee and other MAG committees. As members of MAG, these communities receive information on all MAG issues and products, participate in issue discussions, and are part of the decision-making process like other jurisdictions (cities, towns, county) in the MAG region. In addition, a specific position on the Transportation Policy Committee is designated for a Native American Community representative (Gila River Indian Community pending). The Fort McDowell-Yavapai Nation, which is the remaining Native American Tribal Government in the MAG area, is considering joining MAG. In addition to membership in MAG, state law requires MAG to specifically consult with the Native American Communities in the county on the preparation and amendment of the Regional Transportation Plan.

SUBREGIONAL/SUB-AREA OR FACILITY PLANNING STUDIES

The MPO may undertake subregional/subarea, and transportation facility or service planning studies to support the regional planning process. These may be undertaken by MPO staff, member agencies, or other appropriate organizations. These efforts must relate to the development of a transportation project or service for consideration for the RTP or RTIP, the analysis of issues to guide the development of transportation or land use, or other policies or strategies, or otherwise be consistent with and support the mission of the organization.

MAG has the responsibility to develop the Regional Transportation Plan (RTP) and the associated regional Transportation Improvement Program (RTIP) for the Maricopa region. In keeping with this responsibility, MAG conducts technical studies as needed. The studies serve as background or supporting documents for the RTP. The major sub-regional/sub area studies that were conducted are listed below:

Area Studies & Systemwide Studies

- Northwest Area Transportation Study
- Southwest Area Transportation Study
- Southeast Maricopa/Northern Pinal County Area Transportation Study
- ITS Strategic Plan Update
- Bottleneck and Freeway Capacity Studies
- High Occupancy and Value Lanes Studies
- East-West Mobility Study

Highway Corridors

- Grand Avenue Northwest Corridor Study
- CANAMEX Corridor Study

Transit & Related

- High Capacity Transit Study
- Valley Metro Regional Transit System Study
- Park and Ride Site Selection Project

Off-Road

- Regional Off-Street System (ROSS) Plan Information
- West Valley Rivers Trail Corridor

Question: Identify how the MPO addresses the elements listed below.

Requirements/Expectations: The MPO must:

- a) **Seek to identify high priority areas, corridors, or facilities for study.**

MAG conducted a series of RTP background or supporting studies, targeting high priority areas, corridors, facilities and/or issues. These studies were undertaken in support of the development of the new Regional Transportation Plan approved November 25, 2003 by the MAG Regional Council.

The area studies targeted the rapidly growing outlying sectors of the MAG region in the West Valley and Southeast Valley. As with the RTP, the area studies were comprehensive, multi-modal and

performance-based in approach and long-term in outlook. A summary of the project status, key issues addressed and recommendations is given at the end of this section for each study.

Area studies for the central area and northeast area were not pursued given the already highly developed transportation elements in General Plans for the local jurisdictions and the modal studies already underway or planned that would address regional facilities in these areas. The separately conducted studies addressed freeway and system needs (the Bottleneck, High Occupancy Value Lane, and ITS Studies) and transit/related needs (the High Capacity, Regional Transit System and Park and Ride Studies) across the region, including the northeast.

Corridor studies were conducted for facilities or corridors identified in previous editions of the regional long-range plan as priorities for improvements or study. This included US 60 (Grand Avenue) and the CANAMEX Corridor, which is one of forty-three corridors identified as national high priority corridors. The area studies identified additional freeway corridors for which future planning, design and environmental studies will be needed, e.g. Loop 303 (Estrella), Loop 202 (South Mountain), the I-10 Reliever, SR 74 (Carefree Highway) and the Williams Gateway Freeway.

New arterial roadway corridors were also identified in the area studies, e.g. the Lake Pleasant/Happy Valley Connection between Loops 101 and 303, the Happy Valley/Jomax Corridor, the Northern Avenue Parkway, the Rio Salado Parkway, and the El Mirage Corridor. In support of the regional or mile arterial grid system, a number of arterial and intersection improvements were also identified at select locations. Each of these new corridor and facilities will undergo additional study (planning, design and environmental as appropriate) as part of the implementation process.

b) Ensure that the studies are concluded on a reasonably timely basis and incorporated into the regional transportation planning process.

The RTP background studies were initiated before the start of the RTP Phase II process and served primarily to identify needs and recommendations for new transportation infrastructure and services for further consideration and analysis in the subsequent RTP development process. A number of policy-related recommendations were also developed in the area studies and reflected in the RTP development process.

The RTP background studies included recommendations to establish new corridors; enhance existing facilities; maintain mile arterial grid system connectivity and continuity; and support early right-of-way acquisition for new/improved corridors to preserve the corridor and help minimize cost increases. The recommendations from the area studies will also serve as input in the development of freeway and highway ultimate concept plans for addition to the RTP in a future update. Also, background studies provided concepts for regional bus service and high capacity transit facilities.

Overall, the RTP background studies were completed in a manner and schedule to serve as input into the project, service recommendations and policy elements of the RTP. The studies will also serve as input or reference material for future updates to the RTP, for example, to incorporate the ultimate concepts for freeways, highways and transit facilities.

c) Work to ensure that steps are taken, where possible, to provide analysis and coordination that will streamline the environmental review and agency decision making process.

Streamlining of the environmental review and agency decision-making processes was assisted by structuring the RTP study process and associated background studies to address environmental issues

early in the transportation planning development process. This early ongoing consultation on potential environmental issues helped to develop consensus-based recommendations that would generally be supported by the public, stakeholders, and other agencies.

The process was structured so that, typically, each study identified transportation-related issues from a combination of consultation, review of previous or related studies, and technical analyses. The studies then developed alternatives for transportation infrastructure or services to address the identified issues, and assessed those alternatives using standard criteria that included potential environmental impacts at a broad level (including potential impacts to environmental justice populations). Finally, the studies developed conclusions and recommendations for transportation projects, services and/or policies based on their assessment of the alternatives against the standard criteria. Consultation with the public, stakeholders and agencies occurred early and continuously throughout each study.

This extensive and structured process helped to ensure for each study that: (a) key issues (including environmental issues) and alternatives were identified and documented; (b) interested members of the public, stakeholders and other agencies were informed early and on an ongoing basis; and (c) recommendations were developed that were feasible and practical to implement, and had consensus support. Each of these results helps to contribute to greater efficiency and effectiveness for subsequent design and environmental studies, by allowing them to better focus on key issues, alternatives and recommendations and more easily reach consensus-based and broadly supported decisions.

d) Ensure that all requirements for public involvement, Title VI, and environmental justice are met.

MAG has been committed from its inception to ensuring that its transportation plans and programs meet the needs of the entire regional community, including the general public and the Valley's many different socioeconomic and ethnic groups as well, as other public and private stakeholders and agencies or organizations. In addition to this general standard that MAG has established for all of its studies, plans and programs, all consultation activities meet all applicable federal, state and local (e.g. air quality conformity) requirements.

For this reason, the scope of work for each RTP background study included public, stakeholder and agency consultation as a key task. The consultation activities were designed to inform and obtain representative input from all affected residents and stakeholders, while meeting all federal, state and local requirements, including those relating to Title VI, Environmental Justice and air quality conformity. The consultation also had the objective to develop a consensus among all public and private stakeholders that the study was thorough, addressed their needs and concerns, provided a vision for the area and would result in a plan of investments for the corridor or area that was feasible and could be implemented.

More specifically, input was sought from all components of the community including the general public, business leaders, landowners, agency staff, and elected officials. The analysis and reporting of results considered the interests of all residents of the region, including Title VI and Environmental Justice populations, that could be affected by the study recommendations. Each study established a Web site as a key mechanism for coordinating information among the various studies. Coordination on the consultation plans and Web site designs, schedules for updates and timely sharing of information to the extent possible was required of each consultant team.

For the area studies in particular, the scope of work additionally required the development of Consultation Plans at the beginning of each study that specified how consultation with the public, stakeholders and agencies would be conducted. To accomplish this, consultation activities identified in the Consultation Plans served to solicit and encourage input early and continuously throughout the study, and in particular at key stages in the study process.

The Consultation Plans were developed to be consistent with local, state and federal requirements or expectation for consultation for major studies. Consultation activities included open houses and public meetings, agency forums, and interviews with key stakeholders including elected officials and representatives of key agencies. Draft working papers as well as final reports were subject to consultation. The draft Consultation Plans were circulated for review and comment. Copies were posted on the Web site established for each study and were available to the public.

As a result, each study underwent a comprehensive and continuous consultation process to receive input from the public, local businesses, landowners and other stakeholders, and local, state and federal agencies on issues to be addressed in the studies, options to consider, the assessment of those options, and the final recommendations. Title VI and Environmental Justice populations were identified in each study, and potential impacts and benefits to these populations were considered.

With regard to the latter, MAG embraces the principles of Title VI of the Civil Rights Act of 1964, which provides that “No person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.” MAG is additionally committed to the principles of “environmental justice,” by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority populations and low-income populations.

While Title VI and Environmental Justice are not new concerns, because of the evolution of the transportation planning process, they are receiving greater emphasis. There is also a renewed commitment to ensure the full and fair participation by all potentially affected communities in the transportation decision-making process. Through its public involvement process, MAG seeks to provide Title VI and Environmental Justice communities access to public information on, and an opportunity for public participation in, matters relating to human health or the environment. Consultant teams working on MAG projects are required solicit input and participation from the federally specified Environmental Justice and Title VI populations.

Note also that the consultation processes for each study were coordinated with the ongoing Regional Transportation Plan public involvement program at MAG, the consultation processes for other area and background studies being conducted simultaneously and, as appropriate, other agency/local jurisdictional consultation processes. This coordination effort helped increase the efficiency and efficacy of the overall consultation effort, and thereby helped facilitate the achievement of consensus-based and broadly supported decisions by the participating agencies.

- e) **Ensure that the roles and responsibilities of participating agencies in studies are clearly identified and consistent with any existing agreements between agencies.**

The roles and responsibilities for each participating agency are established from the beginning of the study process. Participating agencies include MAG member agencies (which includes agencies such as ADOT with whom MAG has Intergovernmental Agreements) as well as other agencies that may have an

interest in the study, such as FHWA, Bureau of Land Management, and the Arizona State Land Department.

Typically a steering committee or forum was established for each study. The committee or forum included representatives as designated by each participating agency. Committee meetings or forums were generally held every four to six weeks. Participants in the committee meetings or forums received draft study documents or materials, such as working papers, reports, and public information materials, for review and comment. They also had the opportunity at meetings or forums to discuss general project items of interest that they wished to discuss. The representatives also served as the principal point of contact internally for their agency, distributing information, answering questions and responding to information requests regarding the study as needed.

Additionally, MAG member agencies were involved in the Request for Qualifications and/or Request for Proposals stage of the study. In this way, they had an influence on the study scope as it was developed at an early stage, and on the selection of consultants to carry out the study.

f) Ensure that all appropriate federal, state, and local transportation and resource agencies are involved in the process.

The participation of appropriate federal, state, and local transportation and resource agencies is sought for every study. Typically, as noted above, MAG member agencies are involved in every study. MAG members include the Arizona State Department of Transportation, the Maricopa County Department of Transportation (for unincorporated areas), (the regional transit planning agency) Valley Metro/Regional Public Transportation Authority, as well as local cities, towns and Indian communities. Other agencies, such as the Federal Highway Administration, Bureau of Land Management, and the Arizona State Land Department, are invited to participate to the particular study as appropriate.

In addition, State Law (HB 2292) calls for an extensive cooperation/consultation process in the development of the Regional Transportation Plan. This includes developing the Plan in cooperation with the Regional Public Transportation Authority and the Department of Transportation and in consultation with the County Board of Supervisors, Indian communities, and cities and towns in the region.

Also, the Plan is submitted for review by the Regional Public Transportation Authority, the State Board of Transportation, the County Board of Supervisors, Indian Communities and cities and towns in the region at the alternatives stage of the Plan and the final draft stage of the Plan. The Regional Public Transportation Authority, the County Board of Supervisors and the State Board of Transportation must submit a written recommendation to the Transportation Policy Committee that the Plan be approved, modified or disapproved. Similarly, Indian communities and cities and towns in the county may submit a written recommendation to the Transportation Policy Committee that the Plan be approved, modified or disapproved.

The Transportation Policy Committee (TPC) must consider plan modifications proposed by any of the above entities and approve, disapprove or further modify each proposed plan modification. The TPC must also provide a written response to the Regional Public Transportation Authority, the State Board of Transportation, the County Board of Supervisors and the entity that submitted proposed modifications.

Question: List major studies undertaken in the last 3 years, identify the key issues, and briefly report on the progress, conclusions, and next steps of the study to date.

Summary of RTP Background Studies

Area Studies & Systemwide Studies

- **Northwest Area Transportation Study**

Key Issues: Freeway capacity improvements (for new and existing freeways, including I-10, I-17, Loop 101, & Loop 303); right-of-way preservation for corridors; addition of and improvements to freeway interchanges; high occupancy vehicle (HOV) lanes on freeways; access control policies; arterial grid completion; river crossings; intelligent transportation systems (ITS); funding; non-motorized access, pedestrian facilities, and other.

Conclusions and Recommendations: The Study recommended the addition of new freeway capacity, both in the form of new freeways as well as widening of existing freeways, and including both general purpose and HOV lanes. Continued construction of the mile arterial grid system where feasible was recommended, with the addition of select higher-level arterial roadway corridors to improve capacity. Recommendations for bus and rail transit services were coordinated with those from the MAG High Capacity Transit and the Valley Metro/RPTA Regional Transit System studies that were conducted concurrently. ITS implementation was recommended for regional freeways, arterials and transit. An off-road system plan was developed. Policy recommendations were developed, e.g. continued development of the arterial grid, and the early preservation of right-of-way to preserve freeway, arterial, and high capacity transit corridors. Funding recommendations were developed, including funding for roadway maintenance.

Current Status: Complete. Copies of the final report (print and electronic versions on CD-ROMs) have been distributed to MAG member agencies and other study participants. Copies have been posted on the MAG Web site, linked with the RTP home page. Major recommendations have been incorporated into the RTP.

Next Steps: Recommendations for ultimate concepts of new transportation infrastructure/facilities will be considered in the development of ultimate concepts plans for inclusion in future updates to the RTP.

- **Southwest Area Transportation Study**

Key Issues: Right-of-way preservation for corridors; I-10 improvements including added capacity, HOV lanes and access points; options to relieve traffic on I-10, particularly in congested sections; Loop 303 improvements/extension; high occupancy vehicle (HOV) lanes on freeways; freeway capacity improvements in general (for new and existing freeways); major arterial routes (discontinuous and incomplete roadway network, and limited east-west roadway capacity); river crossings; funding; intelligent transportation systems (ITS); transit services including bus pullouts; bus and rail corridors; non-motorized facilities; pedestrian facilities, facilities serving Luke Air Force Base; and other.

Conclusions and Recommendations: The Study recommended the addition of new freeway capacity, both in the form of new freeways as well as widening of existing freeways, and including both general purpose and HOV lanes. Continued construction of the mile arterial grid system where feasible was recommended, with the addition of select higher-level arterial roadway corridors to improve capacity. Recommendations for bus and rail transit services were coordinated with those from the MAG High Capacity Transit and the Valley Metro/RPTA Regional Transit System studies that were conducted concurrently. ITS implementation was recommended for regional freeways, arterials and transit. An off-road system plan was developed. Policy recommendations were developed, e.g. continued development of the arterial grid, and the early preservation of right-of-way to preserve freeway, arterial, and high capacity transit corridors. Funding recommendations were

developed, including funding for roadway maintenance.

Current Status: Complete. Copies of the final report (print and electronic versions on CD-ROMs) have been distributed to MAG member agencies and other study participants. Copies have been posted on the MAG Web site, linked with the RTP home page. Major recommendations have been incorporated into the RTP.

Next Steps: Recommendations for ultimate concepts of new transportation infrastructure/facilities will be considered in the development of ultimate concepts plans for inclusion in future updates to the RTP.

- **Southeast Maricopa/Northern Pinal County Area Transportation Study**

Key Issues: New freeway corridors, including one from I-10 in Pinal County north to the East Valley area, one from Loop 202 (Santan) east to Williams Gateway Airport and Pinal County; and one from US 60 south around Queen Creek and west to Loop 101 and/or I-10; widening of Loop 101 (Pima and Price), Loop 202 (Red Mountain and Santan), and US 60 in Pinal County; the addition of HOV lanes to Loops 101 and 202; new/improved freeway interchanges; discontinuities in the arterial grid, particularly due to major developments; extension of the arterial grid system into northern Pinal County; SR 87 completion; extension of Arizona Boulevard north to Hunt Highway; treatment of Rittenhouse Road; Ellsworth Road realignment; access to State Trust Land; extension of SR 88 to the south; SR 79 widening; US 60 Bypass in the Gold Canyon area; additional crossing of the CAP Canal in Apache Junction; improvements to Attaway Road and Ganzel Road; transit services (range of services needed: passenger amenities, intermodal facilities, rural transit, low income and elderly needs, vanpools, commuter service from Casa Grande to Phoenix, express bus and park and ride for Gold Canyon to Phoenix commuters, long term high capacity improvements, and other); HOV lanes on freeways; non-motorized issues (inclusion of bike lanes on arterial and collector cross-sections, minimization of barriers to bike travel, bike parking, pedestrian facilities, multi-use pathways); airport access; arterial capacity (new arterials and improvements to existing arterials, including intersection improvements and aesthetics); bridge construction; railroad crossings; and right-of-way preservation for corridors.

Conclusions and Recommendations: The Study recommended the addition of new freeway capacity, both in the form of new freeways as well as widening of existing freeways, and including both general purpose and HOV lanes. Continued construction of the mile arterial grid system where feasible was recommended, with the addition of select higher-level arterial roadway corridors to improve capacity. Recommendations for bus and rail transit services were coordinated with those from the MAG High Capacity Transit and the Valley Metro/RPTA Regional Transit System studies that were conducted concurrently. ITS implementation was recommended for regional freeways, arterials and transit. An off-road system plan was developed. Policy recommendations were developed, e.g. continued development of the arterial grid, and the early preservation of right-of-way to preserve freeway, arterial, and high capacity transit corridors. Funding recommendations were developed, including funding for roadway maintenance.

Current Status: Complete. Copies of the final report (print and electronic versions on CD-ROMs) have been distributed to MAG member agencies and other study participants. Copies have been posted on the MAG Web site, linked with the RTP home page. Major recommendations have been incorporated into the RTP.

Next Steps: Recommendations for ultimate concepts of new transportation infrastructure/facilities will be considered in the development of ultimate concepts plans for inclusion in future updates to the RTP.

- **ITS Strategic Plan Update**

Key Issues: Coordination of signal systems across jurisdictional boundaries and improve progression; improvement of incident detection capabilities and reduce incidence clearing times; improve accuracy, timeliness and availability of real-time traveler information to the public; increase the use of VMS for more types of traffic and incident information; increase agency coordination (internal and external); improve bus progression using signal traffic preemption; ITS public education and marketing; improve traffic management of special events; provision of advanced warning systems at railroad/street crossings; increase automated traffic data collection and archiving capability; install freeway call boxes; and provide Public Safety Answering Point (PSAP) managers with access to real-time information.

Conclusions and Recommendations: Regional ITS architecture consistent with USDOT-adopted ITS standards; telecommunications plan; regional ITS Training and Capacity Building; ITS Operational and Implementation Strategies (e.g. MAG to develop a Regional Concept of Operations Plan to define the regional ITS goals for operations, member jurisdictions should make all efforts to maintain consistency and compatibility with the regional ITS Strategic Plan; opportunities to develop and expand systems across multiple jurisdictions should be investigated; joint maintenance agreements should be investigated to improve the maintenance of equipment and reduce costs, etc); ITS Evaluation Plan; and ITS Implementation Plan.

Current Status: Complete. Copies of the final report have been distributed to MAG member agencies and other study participants. Copies have been posted on the MAG Web site, linked with the RTP home page. Recommendations from the study have been incorporated into the RTP.

Next Steps: Implementation of the recommended new components of the regional system is contingent upon funding from the extension of the one-half cent sales tax.

- **Bottleneck and Freeway Capacity Study**

Key Issues: Identification of bottleneck and freeway capacity locations on regional freeways, and development of projects to address the identified locations.

Conclusions and Recommendations: Critical bottleneck locations were identified for consideration in the RTP development process. Potential solutions such as double decking of a segment of I-17 north of I-10 were developed.

Current Status: Near completion. Preliminary recommendations from the study have been incorporated into the RTP; e.g., potential double decking of a segment of I-17 north of I-10 and widening of other freeway segments.

Next Steps: Completion of the study documentation.

- **High Occupancy and Value Lanes Study**

Key Issues: Evaluate existing, planned and potential enhancements to HOV facilities, including HOV lanes, HOV ramp meter bypass ramps, direct access to and from HOV lanes, HOV direct connectors (ramps) between freeways, and the feasibility of implementing High Occupancy Toll (HOT) or "Value" lanes on regional freeways.

Conclusions and Recommendations: Recommendations were developed for a system of HOV lanes and connectors. Recommendations were also developed for Direct HOV Access Ramps; HOV Bypass Ramps; and Value Lanes.

Current Status: Complete. Copies of the final report have been distributed to MAG member agencies and other study participants. Copies have been posted on the MAG Web site, linked with the RTP home page. Recommendations from the study for HOV lanes and connectors have been incorporated into the RTP as appropriate.

Next Steps: Implementation of the recommended new components of the regional system is contingent upon funding from the extension of the one-half cent sales tax.

- **East-West Mobility Study**

Key Issues: Improvement of east-west travel through the north-central Maricopa region, bounded on the north by Thunderbird Road/Waddell Road, on the west by Loop 303, on the south by Northern Avenue, and on the east by SR51.

Conclusions and Recommendations: A system of roadway and intersection improvements was recommended. A major recommendation related to the development of the Northern Avenue Parkway.

Current Status: Complete. Copies of the final report are available and interim study products have been posted on the MAG Website. Findings from the study have been considered in the RTP as appropriate.

Next Steps: Implementation of the recommended new components of the regional system contingent upon funding from the extension of the one-half cent sales tax.

Highway Corridors

- **Grand Avenue Northwest Corridor Study (Loop 101 to Loop 303)**

Key Issues: Improve crossings of Grand Avenue and the railroad; improve emergency vehicle access within the corridor; improve traffic operations at intersections; expedite travel along Grand Avenue; minimize environmental impacts including noise, visual and air pollution; improve the aesthetics of the corridor; identify opportunities to enhance the street network continuity to improve regional mobility; improve safety within the corridor, address access control policies for Grand Avenue; enhance elderly mobility; enhance alternative mode travel within the corridor; and develop strategies that seek to improve both rail and vehicular traffic within the corridor.

Conclusions and Recommendations: Construct Grand Avenue as a six-lane roadway with a raised median, including 10-ft shoulders (which may be used by cyclists) where the right-of-way is available; use the Design Concept Report process for the widening to also determine intersection improvement needs, light and landscaping needs; and guard rail needs (along the drainage channel); extend the ITS Smart Corridor designation along Grand as far north as Loop 303; conduct additional study on the need for grade separations to provide emergency access to the two hospitals; identify a funding source for transit services for the area; when a funding source for transit is identified, implement a dial-a-ride system that is integrated with the bus system, and construct the planned park and ride lot at Bell Road; local communities should participate in the funding and development of non-motorized corridors planned along the rivers, with connections to be provided to the resident area for cyclists and pedestrians; implement grade separations at El Mirage, Meeker/Reems, and 103rd Avenue, following further study as needed; improve the Bell Road intersection at Grand Avenue; and retain the current law limiting golf carts to roads with speed limits of 35 mph or less.

Current Status: Complete. Copies of the final report (print and electronic versions on CD-ROMs) have been distributed to MAG member agencies and other study participants. Copies have been posted on the MAG Web site, linked with the RTP home page. Major recommendations have been

funded into the RTP. A Design Concept Study as recommended in the project report has been programmed for FY 2006. Funding for improvements to this section have been allocated in the RTP.

Next Steps: Initiate the Design Concept Study as programmed. Allocate funding provided in the RTP for this section of Grand Avenue to specific projects following the completion of the DCR.

- **CANAMEX Corridor Study (Joint Study with ADOT)**

Key Issues: Designation of the CANAMEX Corridor route through the Maricopa region, given termini established federally of I-10 in the southeast and US 93 in the northwest; truck traffic and its impacts; economic development; environmental issues including in particular the urban air quality non-attainment area for particulate under 10 microns in diameter (PM-10).

Conclusions and Recommendations: A route was approved by the MAG Regional Council and recommended for federal designation. The recommended route included I-8 from its junction with I-10 in Pinal County to SR 85, SR 85 from I-8 to I-10 west of the Phoenix area; I-10 west to a new alignment in the vicinity of the Wickenburg Road/Vulture Mine Road Corridor, the planned Wickenburg Bypass south of Wickenburg from the CANAMEX Corridor alignment in the vicinity of Vulture Mine Road west and north to connect to US 93 north of Wickenburg. The ultimate design standard for the corridor would be a minimum four-lane divided highway. Future studies would address specific alignment and design issues.

Current Status: Complete. Copies of the final report have been distributed to MAG member agencies and other study participants. Recommendations from the study have been incorporated into the RTP. ADOT is currently conducting a study to determine the alignment for the facility along the Wickenburg/ Vulture Mine Road corridor.

Next Steps: Completion of the ADOT Study. Seek federal designation of the Corridor within the Maricopa region.

Transit & Related

- **High Capacity Transit Study**

Key Issues: Feasibility of commuter rail along existing freight corridors; identification of new potential high capacity corridors; need for a regional high capacity transit plan, complete with an implementation plan.

Conclusions and Recommendations: A regional system of high capacity transit service that includes both rail and Bus Rapid Transit (BRT) components was recommended.

Current Status: Complete. Copies of the final report have been distributed to MAG member agencies and other study participants. Copies have been posted on the MAG Web site, linked with the RTP home page. Recommendations from the study have been incorporated into the RTP.

Next Steps: Implementation of the recommended new components of the regional system is contingent upon funding from the extension of the one-half cent sales tax.

- **Valley Metro Regional Transit System (RTS) Study**

Key Issues: Provision of transit to encourage mobility and independence for residents of the region; encourage the use of alternative modes; provide transit access and facilities for major activity centers, employment, education, shopping, medical services, and airports; support economic activity;

support development of intermodal centers; support city comprehensive plans where transit-oriented development is planned; and use new technology where available to provide improved service.

Conclusions and Recommendations: Regional bus service, including “super-grid,” arterial and freeway Bus Rapid Transit (BRT); local fixed-route service; rural/flexible transit service; vanpools; paratransit service; transit demand management; and capital projects.

Current Status: Complete. Copies of the final report have been distributed to MAG member agencies and other study participants. Copies have been posted on the MAG Web site, linked with the RTP home page. Recommendations from the study have been incorporated into the RTP.

Next Steps: Implementation of the recommended new components of the regional system is contingent upon funding from the extension of the one-half cent sales tax.

- **Park and Ride Site Selection Project**

Key Issues: Increasing congestion on freeways and arterials; air quality concerns; low transit and HOV lane use; continued rapid growth across the region, with corresponding rapid development of land; and the need to better support the implementation of transit/express bus and HOV projects and services.

Conclusions and Recommendations: A system or plan for twenty new park and ride lots as part of a regional system supporting express bus service on regional freeways/HOV facilities was recommended. Design guidelines were provided. A recommended management and operations program for local jurisdictions was also provided, addressing recommended bus service to support the lots and minimum maintenance requirements.

Current Status: Complete. Copies of the final report (print and electronic versions on CD-ROMs) have been distributed to MAG member agencies and other study participants. Copies have been posted on the MAG Web site, linked with the RTP home page. Recommendations from the study have been incorporated into the RTP. More than half of the recommended lots have been programmed.

Next Steps: Continued implementation of the park and ride system.

Off-Street

- **Regional Off-Street System (ROSS) Plan**

Key Issues: In recognition of the numerous off-street corridors in the region that could be used for travel by people who walk and bicycle, the MAG Regional Off-Street System Plan (ROSS) reveals a region wide system of off-street paths/trails for non-motorized travelers. These corridors include canals, utility line easements, flood control rights-of-way, railroads, desert streams and washes and freeway drainage areas. The ROSS recognizes the numerous health and environmental, recreational, economic, educational and quality-of-life benefits of off-street paths/trails. Major issues identified included existing trends in growth and development in the MAG Region, ensuring access for all residents to a safe and connected off-street system, specific design issues and implementation issues (especially funding).

Conclusions and Recommendations: The ROSS guides MAG members in creating an off-street non-motorized transportation system. An action plan identifies specific roles for MAG and its member agencies in implementing the ROSS. An appendix in the ROSS also includes a “path/trail implementation toolbox,” which is designed to help member agencies implement the ROSS. Model ordinances for local adoption of the ROSS is also provided in the document.

Current Status: Complete. Copies of the final report have been distributed to MAG member agencies and other study participants. Copies have been posted on the MAG Web site, linked with the RTP home page. Recommendations from the study have been incorporated into the RTP as appropriate.

Next Steps: Continued implementation of the system.

- **West Valley Multi-Modal Transportation Corridor Plan**

Sponsored by MAG and funded through the Arizona Department of Transportation Enhancement Fund Program, this Plan creates a regional planning framework for a 42-mile trail network for pedestrians and, equestrians, bicyclists and other non-motorized transportation users. The Corridor stretches southwest from the community of New River to the convergence of the lower Agua Fria River with the Gila River. The Plan was created in conjunction with the Agua Fria Watercourse Master Plan, funded by the Flood Control District of Maricopa County (FCD), which focuses on protecting the public from the hazards of flooding and also provides an opportunity to integrate open space and recreation uses with floodplain management.

Key Issues: The MAG and FCD Plans represent a comprehensive approach to the sustainable management of a multi-objective corridor, resulting in a regional planning framework for protecting the public from the hazards of flooding while simultaneously provide a plan for integrated open space, recreation and non-motorized trails, and riparian and wildlife habitat preservation. The overall MAG plan details a connected system of shared-use trails along the entire 42-mile length of the Corridor that connect residents to schools, parks, employment, recreational and open space areas, and canals in every community touched by the Corridor. Where possible, the trails take advantage of locations that offer the community multiple benefits, such as alternative transportation routes, recreational opportunities, wildlife habitat preservation, open space protection and flood control. Plans are responsive to different landscape characteristics along the Corridor.

The MAG Plan includes a separate Implementation Strategies Action Plan to guide consistent implementation of various corridor segments. Specific strategies have been outlined in the Action Plan to ensure trail development adjacent to new development and preservation of corridors for future trail development. The Action Plan further describes specific funding sources and land ownership parcel information to guide future steps in the trail development process. A variety of methods of public acquisition of trails and trail access points have been considered, including the purchase of property, designation of rights-of-way as trails, dedication of private lands for trails during the rezoning process, and exchange for land.

Conclusions and Recommendations: To more effectively plan, implement and manage the 42-mile trail system, the corridor was divided into 16 segments. For each segment, the Master Plan identifies trail type (primary, secondary, neighborhood/transit/connector, conservation/interpretative, and equestrian) and location, and trail amenities. Amenities vary by segment and could include gateway features, staging areas, access ramps, roadway bridges and crossings, trail underpasses and connections to transit. The Implementation Strategies Action Plan identifies potential solutions to major implementation issues for each of the 16 trail segments and specific actions to implement each trail segment.

Current Status: Complete. Copies of the final report have been distributed to MAG member agencies and other study participants. Copies of the final report and accompanying Action Plan are also available on the MAG Web site.

Next Steps: Continued implementation of the system as outlined in the Master Plan and Implementation Strategies Action Plan.

**SECTION THREE:
ADMINISTRATIVE/ORGANIZATIONAL
ISSUES**

MPO POLICY BOARD STRUCTURE

Goal: The MPO Policy Board should include key transportation stakeholders in the region. These include local elected officials, representatives of the operators of major modes or transportation systems, and appropriate state representatives.

Questions:

- a) **List the members of the MPO Policy Board and the political jurisdiction, state agency, or other organizations they represent.**

The MPO Policy Board consists of 31 members, 25 cities/towns, Maricopa County, two Native American communities, two representatives from the Arizona Department of Transportation (ADOT) and a representative from the Citizens Transportation Oversight Committee (CTOC). This includes the Governor of the Gila River Indian Community, the President of the Salt River Pima Maricopa Indian Community, a Supervisor from the Maricopa County Board of Supervisors, two representatives from the Arizona Department of Transportation (ADOT) State Transportation Board and one representative of the Citizens Transportation Oversight Committee (CTOC). ADOT and CTOC serve as ex-officio members for transportation-related issues. The following is a list of the 25 incorporated cities and towns within Maricopa County represented on the Regional Council by the Mayor, except for the Town of Cave Creek which is represented by the Vice Mayor: City of Apache Junction; City of Avondale; Town of Buckeye; Town of Carefree; Town of Cave Creek; City of Chandler; City of El Mirage; Town of Fountain Hills; Town of Gila Bend; Town of Gilbert; City of Glendale; City of Goodyear; Town of Guadalupe; City of Litchfield Park; City of Mesa; Town of Paradise Valley; City of Peoria; City of Phoenix; Town of Queen Creek; City of Scottsdale; City of Surprise; City of Tempe; City of Tolleson; Town of Wickenburg and Town of Youngtown.

It should be noted that the City of Phoenix contracts for the operation of the bus system, the future Light Rail system and is represented on the MAG Board. The City of Phoenix also operates the regional airport. In addition, members of the RPTA Board sit on the MPO Policy Board.

On June 26, 2002, the Regional Council, after a six-month governance process, established the Transportation Policy Committee (TPC). The TPC consists of a 23-member committee that includes five representatives from the business community, 13 local governments, one freight, one CTOC, State Transportation Board, and Maricopa County representative, and one Native American Indian Community representative (Gila River Indian Community pending). The TPC was charged with developing a new Regional Transportation Plan that will serve as the blueprint for regional transportation investments for the next 20 years. The Plan will help identify projects to be funded through the extension of the half-cent sales tax for transportation.

- b) **List other regionally significant political jurisdictions, relevant government bodies, operators of major transportation modes or systems, or relevant state agencies that are not included on the MPO policy board, if any, and indicate any identified factors that may currently preclude their inclusion of the MPO Policy Board.**

The only Indian Community in the region that does not serve on the MPO Policy Board is the Fort McDowell-Yavapai Nation. They have been invited to join MAG. A representative of the Regional Public Transportation Authority (RPTA) sits on the MPO Management Committee.

According to the MAG By-Laws, Article III, Section 1, a person shall not be eligible to be a member of this corporation unless he or she is a duly elected member of a governing body of a unit of local government located in Maricopa County or in an urbanized area contiguous to Maricopa County. A unit of local government is defined as a city or town located in Maricopa County or in an urbanized area contiguous to Maricopa County, that portion of an Indian Community located in Maricopa County, and the County of Maricopa. The unit of local government shall designate the person among its duly elected governing body that shall serve as a member of the corporation. Not more than one member of the governing body may represent any unit of local government at any time.

Provide the following document(s): Current MPO By-Laws.

See APPENDIX A.

BOUNDARIES

Goal: The MPO planning area boundaries should be based on census designated urbanized areas and air quality non-attainment designations. The boundaries should also reflect dominant regional travel patterns and foster an effective planning process that ensures connectivity between modes, reduces access disadvantages experienced by modal systems, and promotes efficient overall transportation investment strategies.

Questions:

- a) **Identify the current planning area boundaries for the MPO and their relationship to urbanized area and non-attainment area designations.**

The current planning boundaries for MAG include all of Maricopa County, including the two urbanized areas of Phoenix and Avondale. Executive Order 70-2 established planning boundaries for the State. Federal law has required that MAG include a portion of Pinal County in the MAG Transportation Improvement Program, due to a portion of the PM-10 Nonattainment boundary included in a portion of Pinal County. The Maricopa County Nonattainment Area for carbon monoxide and ozone (one-hour encompasses most of the eastern portion of the county). For particulate matter (PM-10), EPA designated a nonattainment area that also includes Apache Junction in Pinal County. Mechanisms will be explored to broaden the participation in the MAG process as the urbanized area expands and the eight-hour ozone nonattainment area boundary is designated by the Environmental Protection Agency.

- b) **List the urbanized areas included in the current planning area boundaries.**

According to the Bureau of Census, the urbanized areas included in the current MPO planning area boundaries are the City of Phoenix and the City of Avondale.

- c) **Identify any areas of shared responsibility or areas where agreements exist sharing or exchanging planning responsibilities with other MPO's, organizations, or jurisdictions.**

On July 1, 1976, the Arizona Department of Economic Security (DES) contracted with MAG to develop an annual human services plan for the region and to make funding recommendations on approximately \$4.1 million of federal Social Services Block Grant (SSBG) funds.

In 1994, MAG Regional Council and the State Transportation Board jointly adopted an agreement on the process for planning and programming. The agreement is still in existence and is specified in matrix format (a copy is available upon request).

In April 1999, representatives of Metropolitan Planning Organizations (MPOs), Councils of Government (COGs), the Arizona Department of Transportation (ADOT) and the Regional Public Transportation Authority (RPTA) agreed to several guiding principles (Casa Grande Resolves) to help develop and integrate state and regional transportation plans and programs. These revisions have been incorporated into the MAG process.

In January 2000, MAG and ADOT signed a new planning agreement with the State. This agreement replaced the prior agreement that was signed in July 1989. This document required major modifications to reflect the new planning responsibilities of ISTEA and TEA-21.

On May 14, 2003, the Governor signed HB 2292, which describes the planning and implementation responsibilities for MAG, RPTA, and ADOT and explicitly describes the consulting requirement with ADOT, RPTA and Maricopa County. This document also explains the expanded role of CTOC to include transit, and that ADOT performs the Life Cycle Management Program for freeways and streets, and RPTA performs the Life Cycle Management Program for transit.

On February 5, 2004, the Governor signed HB 2456 that requires the Maricopa County Board of Supervisors to call and conduct a countywide special election on November 2, 2004 for the levy of a transportation excise tax beginning in 2006. If approved by the voters, revenues generated by the transportation excise tax are dedicated to funding the Maricopa County Regional Transportation Plan certified by the Maricopa Association of Governments. HB 2456 modifies HB 2292 and states that MAG performs the Life Cycle Management Program for streets.

Arizona Revised Statutes 28-6356 provides for the establishment of a Citizens Transportation Oversight Committee (CTOC) in a county that has a freeway sales tax, such as Maricopa County. CTOC consists of seven persons - one member from each of the five supervisorial districts in Maricopa County, one member appointed by the Governor, and a Chair who is appointed by the Governor. According to ARS 28-6356, CTOC has had the authority to review and advise on matters relating to the regional freeway system. HB 2456 expanded the role of CTOC to include transit. The Chair of CTOC is a member of the Regional Council.

In accordance with Executive Order 95-2, MAG prepares resident population projections at the subregional level that are consistent with county control totals developed by the Arizona Department of Economic Security (DES). These official projections are prepared every five years for federal planning purposes. MAG also prepares projections of households and employment.

d) Identify other factors, if any, which provide the rationale for the current planning areas boundaries.

On June 26, 2002, the Regional Council approved adding Apache Junction as a full member of MAG. The current MPO boundary covers the area that is urbanized, including the portion of Apache Junction that is in Pinal County.

e) Identify, if any, other areas that might potentially be included in the MPO planning area boundaries and any factors that may currently preclude their inclusion in the MPO planning area boundaries.

According to the Code of Federal Regulations, 23 CFR, Section 450.308 Metropolitan Planning Organization: Metropolitan Planning Area Boundaries, the MPO boundary shall, as a minimum, cover the UZA(s) and the contiguous geographic area(s) likely to become urbanized within the twenty year forecast period covered by the transportation plan described in §450.322 of this part. The boundary may encompass the entire metropolitan statistical area or consolidated metropolitan statistical area, as defined by the Bureau of the Census. As further areas become more urbanized according to the Census, an adjustment to the boundaries may be required. For geographic areas designated as nonattainment or maintenance areas (as created by the Clean Air Act Amendments of 1990 (CAAA)) for transportation related pollutants under the CAAA, the boundaries of the metropolitan planning area shall include at least the boundaries of the nonattainment or maintenance areas, except as otherwise provided by agreement between the MPO and the Governor under the procedures specified in §450.310(f) of this part. The provision of the Federal Law would apply to contiguous areas, such as the urbanized areas in Pinal County adjoining the MAG region.

AGREEMENTS

Goal: The MPO and the State are required to develop an agreement or memorandum of understanding that clearly outlines the planning and programming responsibility of each party. The MPO is also required to develop an agreement with the operators of publicly owned transit agencies, which specifies cooperative procedures for carrying out transportation planning and programming activities. In non-attainment or maintenance areas for air quality, if the MPO is not designated for air quality planning under section 174 of the Clear Air Act, there should be an agreement between the MPO and the designated air quality agency describing their respective roles and responsibilities for air quality related transportation planning. Wherever possible, there should be one cooperative agreement between the MPO, State, operators of publicly owned transit agencies, and air quality organizations.

Questions:

- a) **List all publicly owned transit agencies and the designated air quality agency in the MPO planning area.**

Transit Agencies

Regional Public Transportation Authority (RPTA)
City of Phoenix Public Transit Department (Valley Metro)
Valley Metro Rail (VMR)

Air Quality Agency

MAG is the designated Regional Air Quality Planning Agency for the Maricopa County nonattainment area. MAG develops the nonattainment and maintenance plans for carbon monoxide, ozone, and particles (PM-10).

- b) **Identify the dates of agreements with each of these agencies and the State.**

On an annual basis, MAG contracts with RPTA and provides Section 5303 funding for the purposes of transit planning. The contract refers to the Work Program, which is cooperatively developed with RPTA for guidance on planning priorities during the contract period.

November 1992 - Air Quality Memorandum of Agreement among the Arizona Department of Environmental Quality, Arizona Department of Transportation, Maricopa County, and the Maricopa Association of Governments.

July 14, 2000 - a contract between MAG and RPTA for transit planning, outlining the planning relationship between MAG and the RPTA. The contract references the tasks in the Work Program each year and usually in July of each year the annual budget for the task is sent to the RPTA for signature.

May 14, 2003 - HB 2292, Transportation Policy Committee; Regional Planning, was signed by the Governor on May 14, 2003.

For several years, RPTA has contracted with MAG to provide staff support in the areas of transit modeling, land use planning and GIS support. The last contract date is January 1, 2004. MAG staff support is specific to requests by the Valley Metro Rail staff and contractors to support the Metrocenter Corridor Study and required documentation for the Federal Transit Administration (FTA).

February 5, 2004 - HB 2456, Transportation Excise Tax; Election, was signed by the Governor on February 5, 2004.

c) Identify agreements that are currently under development, if any, or agreements that are yet to be established.

A formal partnership/contract is underway with the Pima Association of Governments (PAG) and an informal one with the Central Arizona Association of Governments and the majority of the other Councils of Governments and Metropolitan Planning Organizations in Arizona to create a socioeconomic modeling suite that uses the most recent advancements in technology and modeling techniques. This partnership is intended to build a common socioeconomic approach to socioeconomic data collection and modeling, which would then allow all COGs and MPOs in Arizona to share data, geographic information and modeling expertise.

d) Provide a brief outline of the topic areas covered under any identified agreements and refer to the agreements where necessary.

In 1978, Governor Wesley Bolin designated the Maricopa Association of Governments as the Regional Air Quality Planning Agency for the Maricopa County area. The designation was made in accordance with the Clean Air Act Section 174. In 1992, the Arizona Legislature recertified MAG as the Regional Air Quality Planning Agency in accordance with Section 174 of the 1990 Clean Air Act Amendments (A.R.S. Section 49-406 A.). This designation was then described in the 1992 Air Quality Memorandum of Agreement, which is attached.

The Air Quality Memorandum of Agreement describes the roles and responsibilities of the Arizona Department of Environmental Quality, Arizona Department of Transportation, Maricopa County Environmental Services Department and Maricopa Association of Governments. The Agreement provides the framework for coordinated decision-making in planning, development, implementation and enforcement of those actions necessary to attain and maintain the federal air quality standards. In accordance with this Agreement, the Maricopa Association of Governments has developed air quality plans for carbon monoxide, ozone, and particulates (PM-10). These plan revisions are prepared with input from the parties to the Air Quality Memorandum of Agreement. In addition, MAG conducts the conformity analyses on the Transportation Improvement Program and Regional Transportation Plan.

On April 30, 1999, the Casa Grande Resolves made sweeping changes to the MAG transportation programming process. The ADOT/MAG and the MAG/RPTA Planning Agreements were changed to reflect updated contract language.

On May 14, 2003, the Governor signed HB 2292, which describes the planning and implementation responsibilities for MAG, RPTA, ADOT and explicitly describes the consultation requirement with ADOT, RPTA and Maricopa County. This document also explains the expanded role of Citizens Transportation Oversight Committee to include transit, and that ADOT performs the Life Cycle Management for freeways and that RPTA performs Life Cycle Management Program for transit.

On February 5, 2004, the Governor signed HB 2456, Transportation Excise Tax; Election, that requires the Maricopa County Board of Supervisors to call and conduct a countywide special election on November 2, 2004 for the levy of a transportation excise tax beginning in 2006. If approved by the voters, revenues generated by the transportation excise tax are dedicated to funding the Maricopa

County Regional Transportation Plan certified by the Maricopa Association of Governments. HB 2456 modifies HB 2292 stating that MAG performs the Life Cycle Management Program for streets. HB 2456 states that pursuant to LAW 2003, chapter 217, to appropriately plan for the transportation needs in northern Pinal County and to mitigate the impact on the Maricopa County regional transportation system. The Arizona Department of Transportation (ADOT), the Maricopa Association of Governments (MAG) and the Central Arizona Association of Governments (CAAG) shall jointly further define corridors identified in the southeast Maricopa/northern Pinal County area transportation study for right-of-way preservation.

The MAG System Analysis and Information Services sections will provide support to Valley Metro Rail, Inc. (VMR). Funding is provided to MAG to provide staff support in the area of transit modeling, land use planning and GIS support. MAG staff support will be specific to requests by the VMR staff and contractors to support the Metrocenter Corridor Study and required documentation for the Federal Transit Administration (FTA). Specific areas of staff support include: producing transit modeling output; coding transit networks; analysis of model output; refinement of mode split model; review of mode split model; response to model run requests by VMR staff related to the CP/EV and Metrocenter Corridor Study. All requested data/model runs will be scheduled based on VMR/FTA priorities and coordination between the VMR and MAG staffs. Additional support includes producing model runs to assist in the sizing of park-and-ride lots, station locations, feeder bus networks, parallel bus networks, and providing traffic output to assist the VMR staff in producing traffic, air quality, and noise environmental technical reports and GIS reports as required.

Provide the following document(s): Current MOUs related to air quality and the implementation of other federal required program.

See APPENDIX B.

NAME OF PERSON PREPARING TOPIC RESPONSES

Work Program	Becky Kimbrough
Regional Transportation Plan (RTP)	Roger Herzog
Federal Transportation Improvement Program (FTIP)	Paul Ward
Conformity Analysis/Air Quality Planning	Lindy Bauer
Goods Movement Planning/Coordination	Ken Hall/Roger Herzog
Environmental Justice/Title VI	Kelly Taft
Planning for Improving Transportation System Safety	Sarath Joshua
Public Outreach and Involvement	Kelly Taft
Coordination with Indian Tribal Governments	Kelly Taft/Tom Remes
Transportation Systems Analysis and Monitoring, Including Congestion Management System	Mark Schlappi
Involvement/Interaction with Policy Board	Roger Herzog/Tom Remes/Eric Anderson
Coordination/Planning for Intelligent Transportation Systems (ITS)	Sarath Joshua
Regional Coordination	Roger Herzog/Tom Remes/Eric Anderson
Subregional/Sub-Area or Facility Planning Studies	Chris Voigt
MPO Policy Board Structure	Tom Remes/Denise McClafferty
Boundaries	Tom Remes/Denise McClafferty
Agreements	Tom Remes/Denise McClafferty

APPENDIX A

BY-LAWS
OF
MARICOPA ASSOCIATION OF GOVERNMENTS

ARTICLE I
STATEMENT OF PRINCIPLES AND POLICIES

Section 1:

The underlying concept of the Maricopa Association of Governments is that cities, towns, counties and Indian communities, which are closest to the people, should exercise the basic initiative and leadership and that they should have the primary responsibility for treating with those local problems and needs which require action on an area-wide or regional basis.

Section 2:

The area of concern for the Maricopa Association of Governments is defined as those issues or projects which affect all or a significant part of Maricopa County and the urbanized areas contiguous to Maricopa County.

Section 3:

Constructive and workable policies and programs for meeting area-wide problems of local government will be most effectively and expeditiously developed by regular meetings of governmental unit members in an area-wide voluntary and cooperative association dedicated to the solution of these problems.

Section 4:

Nothing contained in these By-Laws shall authorize the Maricopa Association of Governments to intervene in matters which are essentially within the jurisdiction of any one (1) member, nor to intervene in matters which may affect more than one (1) member but are effective only within each jurisdiction.

Section 5:

The Maricopa Association of Governments is not, nor is it intended to be, a substitute for local government. It is, however, an organization through which individual governmental units can work on regional problems and coordinate their efforts.

ARTICLE II
DEFINITIONS

Section 1:

Association. Association, as used in these By-Laws, means the Maricopa Association of Governments, a nonprofit corporation of the State of Arizona created pursuant to Title 10, Arizona Revised Statutes.

Section 2:

Regional Council. Regional Council, as used in these By-Laws, means the membership of this corporation. The number and qualifications of members is set forth in Article III of these By-Laws. The Regional Council is also constituted as the Board of Directors of this corporation.

Section 3:

Executive Committee. Executive Committee, as used in these By-Laws, means the Chair, Vice Chair and Treasurer of the Regional Council in addition to any other member selected by the Regional Council to serve on the Executive Committee.

Section 4:

Management Committee. Management Committee, as used in these By-Laws, means the eligible city or town managers, or city or town clerks of incorporated municipalities which do not have the council-manager form of government; the county manager of Maricopa County; the chief administrative officer of an Indian community; and the Director of the Arizona Department of Transportation and the Executive Director of the Regional Public Transportation Authority who shall serve as ex-officio members of the Management Committee for traffic and transportation matters only.

Section 5:

Standing and Special Committees. Standing Committee, as used in these By-laws, means the permanent committee(s) formed by the Regional Council to conduct studies and projects on a continuing basis. Special Committee, as used in these By-Laws, means the committee(s) formed by the Regional Council on a temporary basis for the completion of special studies and projects.

ARTICLE III

MEMBERSHIP

Section 1:

A person shall not be eligible to be a member of this corporation unless he or she is a duly elected member of a governing body of a unit of local government located in Maricopa County or in an urbanized area contiguous to Maricopa County, except that the two Arizona Department of Transportation board members for District I shall have ex-officio membership in the corporation for traffic and transportation matters only and the Chairman of the Citizens Transportation Oversight Committee shall have ex-officio membership in the corporation for matters relating to the regional freeway system only. For the purposes of this section, a unit of local government is defined as a city or town located in Maricopa County or in an urbanized area contiguous to Maricopa County, that portion of an Indian Community located in Maricopa County, and the County of Maricopa. The unit of local government shall designate the person among its duly elected governing body that shall serve as a member of the corporation. Not more than (1) member of the governing body may represent any unit of local government at any time. The government of the corporation shall be vested in the membership and shall be collectively known as the "Regional Council."

Section 2:

A certificate of membership shall be issued to each member, which certificate shall not be transferable. Any person ceasing to be a member, whether voluntarily or by expulsion or no longer meeting the eligibility requirements established by Section 1 of this Article, shall forfeit all rights and privileges of membership and all rights and claims in and to the property of the corporation, and all his or her, its or their interests in such property shall vest in the corporation, absolutely. Each certificate of membership shall express on its face that it shall not be transferable.

Section 3:

The membership of the Maricopa Association of Governments can be increased by a majority vote of the members.

ARTICLE IV

MEETINGS OF MEMBERS

Section 1:

The annual meeting of the members of Maricopa Association of Governments shall be held on the fourth Wednesday in June of each year in Phoenix, Maricopa County, Arizona, at a time and place to be designated in the notice of the meeting.

Section 2:

Regular meetings of the members may be held in Maricopa County, Arizona, with the time, date and location of said meetings to be determined by the Regional Council.

Section 3:

Special meetings of the Regional Council may be held in Maricopa County, Arizona, whenever called in writing by the Chair or Vice Chair. In the absence of the Chair, any six (6) members of the corporation may call said meetings. The place of holding special meetings shall be designated in the notice.

Section 4:

The calls and notices of all meetings of the members shall conform to the provisions of Article V of these By-Laws.

Section 5:

The Chair, and in his or her absence the Vice Chair, shall preside at such meetings.

Section 6:

Each member of the corporation, excepting the Arizona Department of Transportation board members for District I, and the Chairman of the Citizens Transportation Oversight Committee is entitled to vote on all matters coming before any meeting of its membership, and each member of the corporation, including the Chair, Vice Chair and Treasurer of the Regional Council may be represented in vote by proxy. The Secretary shall enter a record of such proxies in the minutes of the meetings. On

traffic and transportation matters, the District I transportation board members for the Arizona Department of Transportation shall each have one vote. On matters relating to the regional freeway system, the Chairman of the Citizens Transportation Oversight Committee shall have only one vote.

Section 7:

A simple majority in number of the members, either in person or by proxy, shall constitute a quorum for all purposes. In the absence of a quorum, the Chair of the meeting may adjourn the meeting from time to time without notice, other than by announcement at the meeting, until members sufficient to constitute a quorum shall attend, either in person, or by proxy. At the adjourned meeting at which a quorum shall be present any business may be transacted which might have been transacted at the meeting as originally notified.

Section 8:

All information and/or irregularities in calls, notices of meeting and in the manner of voting, form of proxy credentials, method of ascertaining those present shall be deemed waived if no objection is made at the meeting.

Section 9:

The Regional Council may adopt rules governing its procedures.

ARTICLE V

NOTIFICATION REQUIREMENTS FOR MEETINGS OF REGIONAL COUNCIL

Section 1:

Whenever all of the members shall meet in person or by proxy, such meeting shall be valid for all purposes without call or notice and at such meeting any corporate action may be taken. Whenever all of the Regional Council members meet, such meeting shall be valid for all purposes without call or notices. No call or notice of any meeting of the members shall be necessary if waiver of call and notice be signed by all of the members.

Section 2:

At least five (5) days before the day of any meeting of the members, the Secretary, when requested by the Chair, or in his or her absence by the Vice Chair; or a majority of the Regional Council, shall cause a written notice setting forth the time, place and general purpose of the meeting to be delivered personally or by mail with postage prepaid to each member of record at his or her last post office address as it appears on the books of the corporation.

Section 3:

Any meeting of the Regional Council sitting as a Board of Directors may be called by the Chair or in his or her absence, the Vice Chair, or by a majority of the Regional Council, and notice of such meetings shall be given by the Secretary at least twenty-four (24) hours before the time fixed for the meeting and such notice shall specify time, place and general purpose of the meeting and shall be

delivered personally or mailed, postage prepaid, to each member at his or her last post office address as it appears on the books of the corporation, or shall be communicated to the member by telephone.

ARTICLE VI

MEETINGS OF COMMITTEES NOTIFICATION REQUIREMENTS

Section 1:

The Management Committee shall meet on the call of its Chair with the date, time and place to be fixed by the Chair. At least two (2) days prior notice shall be given to Committee members and the Secretary.

Section 2:

Standing and Special Committees shall meet on the call of their Chair with notification to the Committee members and to the Secretary two (2) days prior to meeting of said Standing or Special Committees.

ARTICLE VII

REGIONAL COUNCIL SITTING AS A BOARD OF DIRECTORS

Section 1:

The business and affairs of the corporation shall be conducted by the Regional Council sitting as a Board of Directors at properly called meetings.

Section 2:

In case the office of Chair, Vice Chair or Treasurer becomes vacant, the remaining Regional Council members, by affirmative vote of the majority thereof, shall elect a successor to hold office for the unexpired term of the officer whose position shall be vacant.

Section 3:

Each director is entitled to vote on all matters coming before any meeting of Regional Council, and each director may be represented in vote by proxy. The Secretary shall enter a record of such proxies in the minutes of the meeting.

Section 4:

The powers and functions of the Regional Council subject to the limitations hereinafter stated, shall include, but not be limited to, the following:

- a. The formulating of policy decisions and determination of policy matters for the corporation.
- b. The approval and adoption of a budget for each fiscal year and a service charge schedule.

- c. The initiation and/or request for studies to be undertaken either by inter-agency agreement, contract, or otherwise as they may deem appropriate.
- d. The right of any director at any meeting of the Regional Council to propose a subject for study by the Maricopa Association of Governments.
- e. The right of any director at any meeting of the Regional Council to request review of any action taken by the Management Committee during the interval between meetings of the Regional Council.
- f. The appointment of such Standing and Special committees deemed necessary to achieve the purposes of the Association. The Regional Council may delegate its appointment authority for Standing and Special committee members to the Chair of the Regional Council.

Section 5:

No person shall have the authority to make or execute binding contracts on behalf of the Maricopa Association of Governments except upon approval of the Regional Council or Executive Committee acting at a properly called meeting. Any contract made or executed by the Executive Committee shall be subject to ratification by the Regional Council at its next meeting.

ARTICLE VIII

OFFICERS

Section 1:

At the annual meeting, the members shall elect the following officers of the corporation: Chair, Vice Chair, and Treasurer, each of whom shall, when elected, also serve as a member of the Executive Committee of this corporation.

Section 2:

The Chair shall be the chief executive of the corporation and shall exercise general supervision over its affairs. He or she shall sign on behalf of the corporation all documents requiring the signature of the corporation and shall do and perform all other acts and things which the Regional Council may require of him or her. He or she shall serve without compensation.

Section 3:

In the absence of the Chair, or his or her inability to act or serve, the Vice Chair shall have the powers of the Chair. He or she shall perform such further duties as the Regional Council may delegate to him or her and shall receive no compensation for his or her services.

Section 4:

The Treasurer shall have the custody and control of the funds of the corporation, subject to the acts of the Regional Council, and shall report the state of the finances of the corporation at each annual meeting of the members and at any special meeting of the members when requested by the Chair. He or she shall perform such other services as the Regional Council may require of him or her and shall serve without compensation.

Section 5:

The Secretary shall be appointed by and serve at the pleasure of the Regional Council and shall keep the minutes of the corporation and such books and these By-Laws or resolutions of the Regional Council may require him or her to keep. He or she shall attest the signature of the authorized officer of all documents requiring the signature of the corporation, shall be the custodian of the seal of the corporation and shall affix the seal to all papers and instruments requiring it. He or she shall perform such other services as the Regional Council may require of him or her and shall receive such compensation for his or her services as the Regional Council may allow. The Secretary shall not be a member of this corporation.

ARTICLE IX**EXECUTIVE COMMITTEE**Section 1:

At the annual meeting of the Regional Council, the Regional Council shall elect an Executive Committee of not less than three (3) Regional Council members to serve until the next annual meeting of the Regional Council. The Chair, Vice Chair and Treasurer of the Regional Council shall be ex-officio members of the Executive Committee, and the Chair shall serve as Chair of the Executive Committee.

Section 2:

In case of any vacancy in the Executive Committee, the Regional Council at its next meeting, may elect a successor to the Committee in the same manner as provided for in Article VII, Section 2, of these By-Laws.

Section 3:

The business and affairs of the corporation which arise between meetings of the Regional Council shall be conducted by the Executive Committee.

Section 4:

The Executive Committee shall meet at the call of the Chair at such place designated by him or her and special meetings may be called by any member of the Committee by having the Secretary give written notice thereof to all of the other members.

Section 5:

A majority of the members of the Executive Committee shall constitute a quorum for the transaction of business at any meeting of the Executive Committee.

Section 6:

The Secretary shall take minutes at all meetings of the Executive Committee and copies of said minutes shall be furnished to the members of the Regional Council after approval by the Executive Committee.

ARTICLE X

MANAGEMENT COMMITTEE

Section 1:

There is established a Management Committee of the Maricopa Association of Governments which shall consist of the eligible city or town managers, or city or town clerks of incorporated municipalities which do not have the council-manager form of government; the county manager of Maricopa County; and the chief administrative officer of the Indian communities. The Director of the Arizona Department of Transportation and the Executive Director of the Regional Public Transportation Authority shall serve in an ex-officio capacity only when matters of traffic and transportation are before the Management Committee. In such matters the Arizona Department of Transportation Director and the Executive Director of the Regional Public Transportation Authority shall each have one vote.

Section 2:

The Management Committee shall be responsible for the functions as hereinafter set forth:

- a. There shall be selected a Chair and Vice Chair, from the members of the Management Committee. Said selection shall occur at the first meeting in June of each year. In the event a vacancy occurs in the chairmanship, the Vice Chair shall become the Chair for the unexpired term and a Vice Chair shall be elected to complete the remainder of the Vice Chair's term.
- b. The Management Committee shall have the authority to appoint committees and personnel to study specific problems, programs, or other matters which the Management Committee has approved for study.
- c. The Management Committee shall act as the coordinating agency for all other committees and subsidiary groups.
- d. The Management Committee shall keep the Regional Council informed on any matter or problem involving intergovernmental cooperation.
- e. The Management Committee shall perform any other functions assigned by the Regional Council.

ARTICLE XI

STANDING AND SPECIAL COMMITTEES

Section 1:

Standing and Special Committees shall be created by the Regional Council from time to time, as the Regional Council may deem appropriate.

Section 2:

The Regional Council shall authorize and define the powers and duties of all committees of the Council.

Section 3:

The Regional Council shall designate a Chair and Vice Chair of the Standing and Special Committees. Vacancies occurring in these positions shall be filled by the Regional Council unless such authority has been delegated to the Chair of the Regional Council.

Section 4:

Membership on Standing and Special Committees shall be determined by the Regional Council. There shall be no minimum nor maximum number of members on any Standing or Special Committee. Nothing in these By-Laws shall be construed to limit membership on these aforesaid committees exclusively to officials serving political subdivisions of the State. The Regional Council, in its discretion, may appoint any individual it deems qualified to serve on a Standing or Special Committee.

ARTICLE XII

FINANCES

Section 1:

Fiscal Year. The fiscal year of the Maricopa Association of Governments shall commence on July 1 of each year.

Section 2:

The Maricopa Association of Governments shall have the power to receive from any public or private source including, but not limited to the federal, state, and local governments, voluntary associations, nonprofit corporation, firms, partnerships, or persons or any combination thereof, bequests, donations, devices, grants, and gifts of all kinds of property, including all forms of ownership interest therein, to do all acts necessary to carry out the purposes of such bequests, gifts, grants, devised and donations, with power to manage, sell, convey, contract, lease or otherwise dispose of the same in accordance with the terms of the bequest, gift, grant, donation, device of trust, or absolutely in case such bequest, grant, gift, donation or device of trust be unconditional.

Section 3:

Members of the corporation representing local units of government in Maricopa County and in the urbanized areas contiguous to Maricopa County shall be responsible for insuring that any service charges assessed by the Regional Council are paid into the association's treasury. All service charges for cities and towns shall be based on population, provided that service charges for cities and towns shall be based on the population within their corporate limits and service charges for Maricopa County shall be based upon population in the unincorporated area of the County, exclusive of Indian communities that are members of Maricopa Association of Governments. Service charges for Indian communities shall be based on population in that portion of the Indian community located in Maricopa County.

Section 4:

The Regional Council may assess special service charges for individual studies or projects, sufficient to provide the funds required for the completion of said studies and projects, in addition to any regularly established service charges.

Section 5:

Annual Audit. The Secretary shall cause an annual audit of the financial affairs of the Association to be made by a public accountant or a certified public accountant selected by the Regional Council at the end of each fiscal year. The audit report shall be made available to all members.

ARTICLE XIII**VOTING PROCEDURE FOR THE REGIONAL COUNCIL AND THE
MANAGEMENT COMMITTEE**Section 1:

(A) The Regional Council and Management Committee shall vote on all motions on the basis of one vote per member, except that the two Arizona Department of Transportation board members for District I on the Regional Council shall each have one vote. However, if any member entity requests a weighted vote, the numerical vote shall have no force or effect unless concurred in by the weighted vote.

(B) When a weighted vote is taken, each member shall have as many votes as the population of the member entity that the member represents bears to the total population of all member entities expressed in percentages. In calculating percentages, fractions of a percent less than one-half or more shall be rounded to the next higher whole number, excepting that no member shall be allocated less than one full percent. Thus each member representing an entity with one percent of the population or less shall have one vote, and each member representing an entity with more than one percent of the population shall have as many votes as that entity's percentage of the population. The affirmative vote of members present representing not less than a majority of the total population of all members present shall be required in order for the motion to pass.

(C) The population of the member entity shall be determined by the most recent decennial or mid-decade special census, excepting that the population of Maricopa County shall be that of the unincorporated portion of Maricopa County only, exclusive of the population of Indian communities within its boundaries that are members of Maricopa Association of Governments. The population of an Indian community is for that portion of the Indian community within Maricopa County. The representatives for the Arizona Department of Transportation vote only on traffic and transportation related issues, do not represent an entity having a population, and shall always have one vote on such issues in a weighted vote. The Chairman of the Citizens Transportation Oversight Committee votes only on issues relating to the regional freeway system, does not represent an entity having a population, and shall always have one vote on such issues in a weighted vote.

(D) Upon receipt of an official decennial or mid-decade special census, or if a new member entity joins Maricopa Association of Governments, the population percentages of each of the member entities, and when applicable the total regional population, shall be recomputed. If an existing member withdraws its membership, the weighted vote shall not be recomputed, but the remaining members shall have the right to vote the number of votes established by the existing percentages.

ARTICLE XV

The seal of the corporation shall be impressed as follows: "Maricopa Association of Governments, incorporated October 24, 1967, Arizona."

ARTICLE XVI

These By-Laws may be amended at any meeting of the Regional Council by a majority vote of all members provided written notice of proposed amendment has been given not less than fifteen (15) days prior to the meeting at which it is to be voted upon.

APPENDIX B

**MEMORANDUM OF AGREEMENT
AMONG
THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
AND
THE ARIZONA DEPARTMENT OF TRANSPORTATION
AND
MARICOPA COUNTY, BY AND THROUGH THE MARICOPA COUNTY
ENVIRONMENTAL QUALITY AND COMMUNITY SERVICES AGENCY
AND
THE MARICOPA ASSOCIATION OF GOVERNMENTS**

PURPOSE

The purpose of this Memorandum of Agreement is to provide the framework and guidelines to promote coordinated decision making in planning, development, and implementation, and enforcement of those actions necessary to attain and maintain the National Ambient Air Quality Standards in Maricopa County, hereafter referred to as the Nonattainment Area Plan, or NAP. This Memorandum is required pursuant to A.R.S. 49-406 D. and E. The Memorandum also provides the framework and guidelines for preparing plans designed to address other air pollution problems of regional concern.

SCOPE

This Memorandum is designed to address the control of the following pollutants: Carbon Monoxide, Ozone, Particulates, and Other Air Pollution Problems of Regional Concern.

The geographical area of concern is Maricopa County or the area specifically designated by the Administrator of the U.S. Environmental Protection Agency as not having attained the National Ambient Air Quality Standards for one or more of the pollutants named above.

RESPONSIBILITIES AND AUTHORITIES

The Arizona Department of Environmental Quality (ADEQ) has the primary authority in the State of Arizona for air pollution control and abatement. ADEQ is charged with preparation, development and maintenance of the State Implementation Plan (A.R.S. § 49-404); designation of areas of the state with respect to compliance with the National Ambient Air Quality Standards (A.R.S. § 49-405); and assuring that nonattainment area plans are implemented (A.R.S. § 49-406 J.). ADEQ has original jurisdiction and control over portable, mobile, and specific types of stationary air pollution sources (see A.R.S. § 49-402 A.). In addition, ADEQ is responsible for development of stationary source permitting procedures and standards (see A.R.S. § 49-480 B.). ADEQ is also responsible for providing technical assistance to political subdivisions of the State for implementing air pollution control programs (A.R.S. § 49-424 A.8.), conducting research on the amounts of hazardous air pollutants in ambient air and their impacts on human health (A.R.S. § 49-426.06); management and implementation of programs under the Air Quality Fee Fund (A.R.S. § 49-551), implementation of the Vehicle Emissions Inspections Program (A.R.S. § 49-521 through 550), and conducting research on vehicular emissions and clean burning fuels (A.R.S. § 49-553). The Department may delegate authority to a county for implementing air pollution control statutes (A.R.S. § 49-424 B.)

The Arizona Department of Transportation (ADOT) has exclusive control over state highways and all other state owned transportation systems (A.R.S. § 28-104). This includes the responsibility of multi-modal state transportation planning, cooperation with local governments, coordination of transportation planning with local governments, investigation of new transportation systems, and advising local governments concerning the development and operation of public transit systems (A.R.S. § 28-104).

The ADOT Director shall also enter into agreements on behalf of the state with political subdivisions for the improvement, maintenance and construction of mass transit systems, and shall provide rules for the application for and expenditure of all mass transit funds (A.R.S. § 28-108).

In addition, ADOT is authorized to conduct demonstration projects to evaluate the effectiveness of new, extended, improved or integrated public transportation services and carpooling or vanpooling activities in meeting regional transportation needs or in improving air quality (A.R.S. § 28-2611). These projects are funded by an annual distribution of \$400,000 from the air quality fund (A.R.S. § 49-551). ADOT must also support ADEQ on reporting to the Legislature results of mobile source emissions Research, where applicable, per A.R.S. § 49-553.

The Maricopa County Environmental Quality and Community Services Agency (MC EQ&CSA) is the local air pollution control department for Maricopa County. The Agency has jurisdiction over air pollution sources not explicitly reserved for state jurisdiction (A.R.S. § 49-402); the Agency is delegated authority from the State of Arizona to regulate certain portable air pollution sources initially reserved for state jurisdiction (A.R.S. § 49-424); the Agency operates the Regional Travel Reduction Program (A.R.S. § 49-582 et seq), and is the principal government sponsor for the Voluntary No Drive Days Program (A.R.S. § 49-506). The Agency is also responsible for monitoring the ambient air quality of the region (A.R.S. § 49-473) through collecting and analyzing air quality data.

Within the Maricopa County Environmental Quality and Community Services Agency, the Assistant County Manager of the Agency is designated as the Air Pollution Control Officer. The Air Pollution Control Officer has the responsibility and authority to enforce the provisions of Article 3, Chapter 3, Title 49, "County Air Pollution Control", Arizona Revised Statutes. The Control Officer also has the responsibility for assuring adequate nonattainment plan implementation as prescribed by A.R.S. § 49-406.

The Maricopa Association of Governments (MAG) is a nonprofit Arizona corporation composed of elected officials from twenty-four cities and towns, Maricopa County, Gila River Indian Community, and the Arizona Department of Transportation. MAG has been designated by the Governor of Arizona as the lead planning organization for Maricopa County that, together with the State, is responsible for determining which elements of the State Implementation Plan revision will be planned, implemented, and enforced by State and local governments in Arizona (Governor Wesley Bolin, February 7, 1978; Clean Air Act § 174(a); and A.R.S. 49-406)). MAG is responsible for providing assistance to the Maricopa County Travel Reduction Regional Task Force and for recommending third and following year travel reduction targets, policies, standards and criteria for the Maricopa County Travel Reduction Program (A.R.S. § 49-582 and 49-588). Related directly to air quality, MAG is the official designated metropolitan transportation planning organization, and the designated agency for preparing population estimates and projections for the Maricopa County area. MAG is also responsible for making transportation/air quality conformity determinations, subject to the consultation procedures as provided by law (Clean Air Act § 176).

UNDERSTANDING/AGREEMENTS

In recognition and to facilitate the accomplishment of the foregoing, IT IS HEREBY AGREED that:

1. The Arizona Department of Environmental Quality; Arizona Department of Transportation; Maricopa County Environmental Quality and Community Services Agency; and Maricopa Association of Governments will work through a coordinated effort to prepare the MAG regional air quality plans as described in Attachments One, Three, Four, and Five. Attachment One contains a description of the generalized roles and areas of expertise of the agencies, the MAG Air Quality Planning Team, and the MAG Air Quality Policy Team. Attachment Three contains the general implementation authorities for measures in the air quality plans. Attachment Four includes provisions for tracking plan implementation; determining reasonable further progress; assurances for adequate plan implementation, and adoption of control measures. Attachment Five contains the Work Programs for Preparing Air Quality Plans.
2. The Maricopa Association of Governments will maintain the MAG Regional Air Quality Planning Process for decision making as described in Attachment Two. This Attachment contains the roles of the MAG Regional Council, MAG Management Committee, MAG Air Quality Policy Committee, and ad hoc Working Groups. MAG will coordinate the preparation of the NAPs. Representatives from ADEQ, ADOT and MC EQ&CSA will be included as ex-officio members of the MAG Air Quality Policy Committee, and active members of all working groups associated with this MAG committee.
3. The Arizona Department of Environmental Quality; Arizona Department of Transportation; Maricopa County Environmental Quality and Community Services Agency; Maricopa Association of Governments will pursue commitments to implement the measures in the NAPs. The aforementioned agencies will continue to evaluate and pursue the implementation of additional air pollution control measures as a result of the evaluations performed as described in Attachment Four.

EFFECTIVE DATE

The Agreement and all Amendments shall become effective on the date it has been signed by all parties to it.

TERM

This Agreement shall remain in effect from the effective date of the Agreement until such time it is terminated or superseded by a subsequent agreement. This Agreement may be terminated by any party to it, providing written notice of intent to terminate is provided to all other parties to the Agreement thirty days prior to the effective date of withdrawal of that party from the Agreement.

AMENDMENT

This Agreement may be amended at any time upon mutual written agreement of all parties. No agent, employee or other representative of any party to this Agreement is empowered to alter any of the terms of the Agreement, unless it is done in writing and signed by the Designated Officers of the respective parties, their authorized representatives, or duly appointed successors.

ATTEST

All terms of this Memorandum of Agreement are hereby acknowledged and agreed, as certified by the signatures of the Designated Officers affixed hereto:

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

By 
Edward Z. Fox, Director, Arizona Department of Environmental Quality

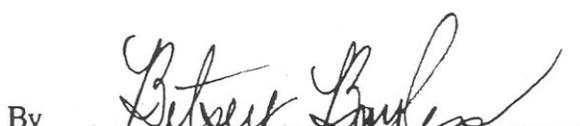
Date NOV 9, 1992

ARIZONA DEPARTMENT OF TRANSPORTATION

By 
James Creedon, Acting Director, Arizona Department of Transportation

Date Nov 9, 1992

MARICOPA COUNTY, BY AND THROUGH THE MARICOPA COUNTY ENVIRONMENTAL QUALITY AND COMMUNITY SERVICES AGENCY

By 
Betsy Bayless, Chairman, Maricopa County Board of Supervisors

Date 11.2.92

MARICOPA ASSOCIATION OF GOVERNMENTS

By 
John J. DeBolske, Secretary, Maricopa Association of Governments

Date 11.2.92

MAG REGIONAL AIR QUALITY PLANNING TECHNICAL PROCESS

- All MAG regional air quality plans are prepared through a coordinated effort among the Arizona Department of Environmental Quality, Arizona Department of Transportation, Maricopa County Environmental Quality and Community Services Agency, and Maricopa Association of Governments.

MAG AIR QUALITY POLICY TEAM

Composition: Director of Arizona Department of Environmental Quality; Director of Arizona Department of Transportation; Air Pollution Control Officer of Maricopa County; MAG Secretary

- Oversees preparation of plans and overall technical planning effort
- Resolves technical problems and issues

MAG AIR QUALITY PLANNING TEAM

Composition: Staff from the Arizona Department of Environmental Quality, Arizona Department of Transportation; Maricopa County Environmental Quality and Community Services Agency; Maricopa Association of Governments

Agency Roles

- Arizona Department of Environmental Quality - air quality modeling and technical assistance, mobile source emissions research and inventory, input for the comprehensive list of measures and feasibility analysis, information relating to the Vehicle Emission Inspection Maintenance Program, stationary and portable source control strategies, air quality research studies, State Air Quality Fund administration, adoption and submittal of State Implementation Plans to the Environmental Protection Agency, tracking plan implementation, assurances, special purpose air quality and meteorological monitoring for plan development and compliance
- Arizona Department of Transportation - State Transportation Improvement Program, other transportation plans and programs, input for the comprehensive list of measures and feasibility analysis
- Maricopa County Environmental Quality and Community Services Agency - stationary source emissions inventory and controls, coordinating the comprehensive emissions inventory, air quality monitoring data, input for comprehensive list of measures and feasibility analysis, mandatory travel reduction program, trip reduction data, voluntary no drive days program, tracking plan implementation, reasonable further progress, assurances, special purpose air quality and meteorological monitoring for plan development and compliance
- Maricopa Association of Governments - demographic projections and socioeconomic data, transportation modeling, air quality modeling, Regional Transportation Improvement Program, Regional Transportation Plan, other transportation plans and programs, congestion management system, conformity, input for comprehensive list of measures and feasibility analysis, development of the air quality plans, interface with state, county, and local entities, recommending future year travel reduction goals, policies, and standards to Maricopa County, assistance to Maricopa County for the mandatory travel reduction program, review reasonable further progress made to reduce air pollution and plan adjustments if necessary, review plan implementation

The technical planning work is closely coordinated with EPA Region IX staff, Federal Highway Administration, and Federal Transit Administration.

MAG REGIONAL AIR QUALITY PLANNING PROCESS

MAG REGIONAL COUNCIL

Composition: *Elected officials from 24 cities and towns, Maricopa County, Gila River Indian Community, and Arizona Department of Transportation, Regional Public Transportation Authority*

- Reviews all pertinent air quality data
- Adopts regional air quality plans
- Formally requests that state, county, local, and other appropriate agencies implement measures in the plans
- Approves trip reduction goals and policies and recommends to Maricopa County
- Determines conformity, subject to the consultation procedures as provided by law (Clean Air Act § 176)
- Maintains an air quality/transportation planning process consistent with federal law

MAG MANAGEMENT COMMITTEE

Composition: *Managers from 24 cities and towns, Maricopa County, Gila River Indian Community, and Arizona Department of Transportation, Regional Public Transportation Authority*

- Reviews all pertinent air quality and transportation data
- Recommends regional air quality and transportation plans
- Recommends trip reduction goals and policies

MAG AIR QUALITY POLICY COMMITTEE

Composition: *10 elected officials from cities and towns and Maricopa County and 9 citizen representatives + ex-officio representatives from Arizona Department of Environmental Quality, Arizona Department of Transportation, and Maricopa County Environmental Quality and Community Services Agency*

- Reviews all pertinent air quality data from the technical planning process
- Reviews air quality research studies conducted by MAG, Arizona Department of Environmental Quality, EPA, Maricopa County Environmental Quality and Community Services Agency, etc.
- Reviews related data generated from other MAG regional planning areas such as transportation, transit, population, regional development, water quality, solid waste, etc.
- Studies in detail a comprehensive list of control measures. Data on the measures includes: description of the measures, air quality impacts, complementary measures, implementation responsibility, costs, advantages and disadvantages, etc.
- Recommends air quality measures for the plans
- Conducts public hearings on the plans
- Formally recommends regional air quality plans and control measures
- Recommends trip reduction goals and policies
- Conducts conformity reviews, subject to the consultation procedures as provided by law (Clean Air Act § 176)
- Reviews reasonable further progress made to reduce air pollution and recommends plan adjustments if necessary
- Provides input on the MAG congestion management system

**ADDITIONAL WORKING GROUPS
AS NECESSARY**

ATTACHMENT THREE

IMPLEMENTATION OF MAG REGIONAL AIR QUALITY PLANS
GENERAL IMPLEMENTATION AUTHORITIES

STATE - ARIZONA DEPARTMENT OF ADMINISTRATION

- Travel reduction and adjusted work hours for state employees

STATE - ARIZONA DEPARTMENT OF COMMERCE

- Capitol Ridesharing Program

STATE - ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

- Mobile source emissions controls
- Mobile source emissions research
- Portable and some major stationary source controls
- Ambient air quality monitoring and research
- Assurances

STATE - ARIZONA DEPARTMENT OF TRANSPORTATION

- State and interstate transportation system planning, development and management (includes High Occupancy Vehicle Lanes, Freeway Management Systems, etc.)
- Vehicle registration and licensing
- Transit Assistance Grants

STATE - ARIZONA DEPARTMENT OF WEIGHTS AND MEASURES

- Oxygenated fuels
- Other fuel quality regulation (e.g. Reid Vapor Pressure)
- Stage I and Stage II vapor recovery

MARICOPA COUNTY - ENVIRONMENTAL QUALITY AND COMMUNITY SERVICES AGENCY

- Stationary source controls
- Delegated portable source controls
- Area source controls (e.g. *de minimis* sources, materials storage and handling, construction)
- Open burning control
- Mandatory Travel Reduction Program (TRP) and Voluntary No Drive Days
- Other transportation control measures in unincorporated areas
- Ambient air monitoring
- County roadways system planning, development and management
- Planning and zoning (unincorporated areas)
- Assurances

MAG CITIES AND TOWNS

- Municipal roadways system planning, development and management
- Transportation control measures (besides TRP)
- Planning and zoning
- Some area source controls (e.g. vacant land, construction practices)
- Public transit (including Regional Public Transportation Authority)

MARICOPA ASSOCIATION OF GOVERNMENTS

- Future year travel reduction goals, policies, standards, and criteria
 - Ridesharing program
 - Conformity determinations, as provided by law (Clean Air Act § 176)
 - Allocation of Congestion Mitigation Air Quality Improvement Program Funds and Surface Transportation Program Funds
-
- * As noted in the MAG regional air quality plans, the action taken by the MAG Regional Council to approve the Suggested Measures and Adopted Plan Measures does not commit each jurisdiction to implement those measures. As indicated in the resolutions and commitments, each jurisdiction determines which measures are reasonably available for implementation by that jurisdiction.

OTHER IMPLEMENTATION AND ADOPTION FUNCTIONS

This attachment includes provisions for tracking plan implementation and determining reasonable further progress; assurances for adequate plan implementation, and procedures and responsibilities for adoption of control measures and emissions limitations.

TRACKING PLAN IMPLEMENTATION AND DETERMINING REASONABLE FURTHER PROGRESS

Each agency is afforded a review and comment period for each ongoing portion of a plan or revision to a plan being prepared by another agency. Every effort will be made to incorporate the comments of the reviewing agency into each portion of the plan being prepared by another agency.

Maricopa County will develop monitoring guidelines with respect to reasonable further progress which will be consistent with the needs of the Arizona Department of Environmental Quality and U.S. EPA. Maricopa County will be responsible for tracking emissions from point, area and non-road mobile sources and for tracking implementation of control strategies. MAG will be responsible for tracking on-road mobile source emissions and conformity. Maricopa County will integrate the MAG information and reports with the Maricopa County information and submit it to the Arizona Department of Environmental Quality.

For the EPA, the primary means of demonstrating the rate of progress will be through the periodic inventories (i.e., complete, actual inventories) submitted every 3 years. EPA has indicated in the General Preamble Section III.A.3 (d) that they currently intend to rely on existing reporting requirements such as emission statements, periodic inventories, annual Aerometric Information Retrieval System update, and conformity reviews.

ASSURANCES FOR ADEQUATE PLAN IMPLEMENTATION

In order to comply with the Clean Air Act, State law provides an approach for assurances that State and local committed measures will be adequately implemented (A.R.S. §49-406 I and J). If any person (includes State, County, local governments, regional agencies, and other entities) fails to implement a committed measure, the County would file an action in Superior Court to have the court order that the measure be implemented. Likewise, the ADEQ Director will backstop the County if it fails to implement a committed measure or if the County fails to backstop the local governments and regional agencies.

Regarding committed measures, A.R.S. §49-406 G. requires that each agency that commits to **implement** any control measure contained in the State Implementation Plan must describe **the commitment** in a resolution. The resolution must be adopted by the appropriate **governing body** of the agency. State law also requires the resolution to specify the **following**: (1) Its authority for implementing the limitation or measure as provided in statute, ordinance or rule; (2) A program for the enforcement of the limitation or measure; and (3) The level of personnel and funding allocated to the implementation of the measure.

As noted in the MAG regional air quality plans, the action taken by the MAG Regional Council to approve the Suggested Measures and Adopted Plan Measures does not commit each jurisdiction to implement those measures. As indicated in the resolutions and commitments, each jurisdiction determines which measures are reasonably available for implementation by that jurisdiction.

PROCEDURES AND RESPONSIBILITIES FOR ADOPTION OF CONTROL MEASURES AND EMISSIONS LIMITATIONS

According to A.R.S. §49-404 B., the ADEQ Director may adopt rules that describe procedures for adoption of revisions to the State Implementation Plan. The State, in accordance with these rules, and the governing body of the metropolitan planning organization (MAG) are required to adopt the nonattainment area plans (A.R.S. §49-406 H.).

**WORK PROGRAMS FOR PREPARING
REGIONAL AIR QUALITY PLANS**

NOTE: The attached work programs are designed to meet statutory deadlines and critical intermediate milestones. Scheduling of specific work activities will be the responsibility of each applicable agency. Some flexibility is permissible for major activities, except for those activities which have a statutory deadline.

November 15, 1992

