

MAG MATTERS

FY 2016 ANNUAL REPORT



Mayor W. J. "Jim" Lane
Scottsdale, Outgoing Chair
Mayor Greg Stanton
Phoenix, Incoming Chair

MAG MATTERS

JOINT MESSAGE FROM THE OUTGOING/INCOMING CHAIRS

As mayors of two great cities, we are committed to making our region a prosperous, safe, and vibrant place. We proudly serve as leaders of the Maricopa Association of Governments. MAG is a fiscally responsible, highly innovative organization working to improve the quality of life in our region.

MAG's legacy of excellence is built upon the leadership of numerous former and current members who made MAG a world-class organization. There are many reasons that MAG matters to the residents of this region.

MAG matters to transportation. No other organization brings together elected officials, business leaders and community members as effectively to create one of the strongest transportation systems in the country. Transportation for America cited MAG as an innovative metropolitan planning organization. The Waze traffic app recently recognized greater Phoenix as the best driving experience in the world. And MAG was named in numerous national and international arenas for its advances in transportation modeling and performance measurement.



MAG matters to safety programs. MAG has a team dedicated to safety planning. One success we celebrated this year was a program that placed Department of Public Safety troopers within the Arizona Department of Transportation's Traffic Operations Center. The first year evaluation found that the average time taken to clear crash sites on regional freeways fell by nearly an hour over the past year. This saves drivers time stuck in traffic. It saves money. Above all, it saves lives.

MAG matters to environmental stewardship. MAG continues to work to address dust and ozone pollution, and we continue to see the monitors falling when it comes to those pollutants. We were especially pleased this year that the Environmental Protection Agency approved the second Carbon Monoxide Maintenance Plan showing that we will maintain the carbon monoxide standard through 2025. This is one pollutant we have been especially good at controlling and we are 72 percent below the national standard.

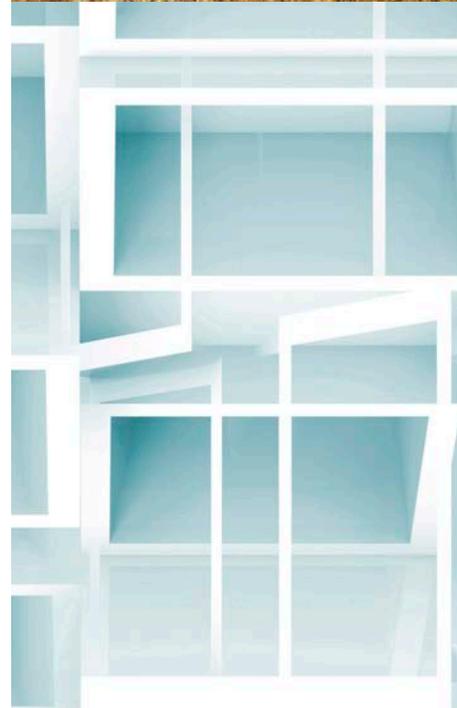
MAG matters to our economy. MAG provides a broad space that brings many regional issues to the forefront through our Economic Development Committee. This committee has worked to improve trade relations with our global partners and to discuss new approaches to prosperity.

MAG matters in providing resources. MAG uses the data it acquires to provide important planning information and business analytics. Online maps include detailed population and demographic maps, employment and traffic data, even school literacy information.

MAG matters in protecting vulnerable populations. MAG's work helps people remain safe from domestic violence, find access to homeless services, and stay connected to their community at all ages. For example, transportation is vital to keeping older adults involved with their communities.

In this report, you will learn about many of the other ways MAG matters. If our region is the heartbeat of our state, then MAG serves as the connective tissue—bringing all voices to the table to address vital and common issues.

Above all, by working together and pooling resources, MAG matters when it comes to providing citizens with the utmost value for every dollar.





MAG Office Building
302 N. 1st Avenue
Phoenix, Arizona

LEADERSHIP MATTERS

The Maricopa Association of Governments (MAG) is a Council of Governments and the designated Metropolitan Planning Organization for regional planning in the greater Phoenix region. Established in 1967, MAG provides regional planning and policy decisions in the areas of Transportation, Environmental Programs, and Human Services, with support from its Administration, Communications, Fiscal Services, Human Resources, Information Services and Information Technology divisions. A recent focus for MAG has been in the area of Economic Development.

MAG's members consist of 27 incorporated cities and towns, three Native American Indian Communities, Maricopa County, portions of Pinal County, and the Arizona Department of Transportation and the Citizens Transportation Oversight Committee.

The Regional Council serves as the governing board and includes representatives from the above agencies. MAG's policy-making structure includes the Regional Council, the Executive Committee, Transportation Policy Committee, Economic Development Committee, Management Committee, and a number of advisory and technical advisory committees.

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COUNCIL**



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Kenneth Weise
Mayor of Avondale



Jackie Meck
Mayor of Buckeye



Mike Farrar
Councilmember, Carefree



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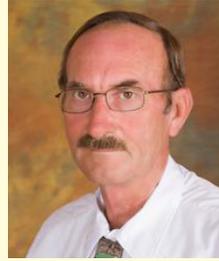
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Denny Barney
Supervisor, Maricopa County



John Giles
Mayor of Mesa



Michael Collins
Mayor of Paradise Valley



Cathy Carlat
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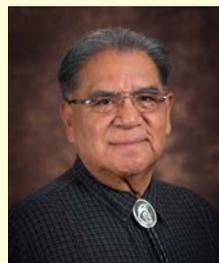
Greg Stanton
Mayor of Phoenix



Todd House
Supervisor, Pinal County



Gail Barney
Mayor of Queen Creek



President Delbert Ray
Salt River Pima-Maricopa Indian Community



Joseph E. La Rue
State Transportation Board



Jack Sellers
State Transportation Board



W. J. "Jim" Lane
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Sharon Wolcott
Mayor of Surprise



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Mayor of Tempe



Adolfo F. Gamez
Mayor of Tolleson



John Cook
Mayor of Wickenburg



Michael LeVault
Mayor of Youngtown



I-10/7th Avenue traffic interchange in downtown Phoenix

TRANSPORTATION MATTERS

Innovative transportation planning is at the heart of MAG. Since 1985, working with the Arizona Department of Transportation (ADOT), we have seen the completion of approximately 180 miles of freeway in our region. With advances in technology, the transportation landscape continues to change. Here are a few highlights of the past year.

South Mountain Freeway

Construction is scheduled to begin this year on the South Mountain Freeway. The freeway will complete Loop 202, providing a direct link between the East Valley and West Valley. The South Mountain Freeway is the largest highway project in state history, but thanks to a public private partnership, the project is under budget by more than \$100 million and will be completed three years ahead of schedule. About 100,000 vehicles a day will use the freeway, improving east-west travel and providing a much-needed alternative to I-10.



Safety Matters

MAG has a team dedicated to safety planning. MAG celebrated the successful first year of a three-year pilot program placing Department of Public Safety troopers within the ADOT Traffic Operations Center. As a result, the average time taken to clear crash sites on freeways was cut by nearly an hour. This helped traffic move more quickly, preventing secondary collisions and saving lives. MAG estimates the region saved \$165 million in lost productivity due to traffic delay. That means for every dollar contributed, the region gained \$368 in benefits.

MAG also conducted road safety assessments of traffic intersections that experience a lot of crashes. These range from busy intersections to highly complex sites where cars, pedestrians, light rail and bicycles mix. A team of experts looked at engineering, enforcement, and human factors to find ways to make the intersections safer. Since the program began in 2011, MAG has conducted more than 40 road safety assessments.

Most Advanced Computer Model

MAG implemented the most advanced travel demand computer model in practice today. The model can show 20 million daily activities of four million people in the region, in a consistent way, minute by minute. This “activity based model” has the highest level of detail and consistency possible to allow for better traffic forecasting. It allows planners to drill down into “micro analysis zones,” which more closely represent single neighborhoods. MAG uses the model not just to see traffic patterns, but to understand the reasons for the traffic.

Expansion of the Existing Transportation System

Investments continue to take place to enhance the regional transportation system. Portions of the Red Mountain and Pima Freeways were expanded to accommodate growth and increased demand. Two extensions of the light rail system opened, including the Central Mesa extension to Mesa Drive in Mesa and the Northwest Extension to 19th Avenue and Dunlap in Phoenix.

System Performance

How do you measure the success of the Valley’s transportation system? MAG does it through a sophisticated reporting tool called “MAGnitude.” MAG uses metrics that follow federal transportation guidelines, then publishes results online through easy-to-understand graphics and maps. By linking project information to system performance, policymakers can make informed decisions to meet transportation goals.

Regional Community Network

You won’t see it, but the Regional Community Network means your commute is safer and emergency services remain available if a 9-1-1 carrier experiences a disruption. The network links cities through fiber optics that bring live access to traffic cameras. Cities can see traffic heading their way, and adjust traffic lights or respond more quickly to emergencies. The network also provides vital 9-1-1 communication links. The network expanded this year with the addition of Queen Creek and the first tribal member, the Salt River Pima-Maricopa Indian Community.



Phoenix was rated the **#1** best driving experience in the world by the Waze traffic app.





ENVIRONMENT MATTERS

MAG continues to protect our environment and our health through the development of air quality plans and other environmental roles. Many residents are not aware that air quality has consistently improved. We have had major successes in addressing the three main pollutants that affect our region, including carbon monoxide, ozone and particulates (dust).

Air Quality

Carbon Monoxide. Major strides were taken last year in addressing carbon monoxide. The Environmental Protection Agency (EPA) approved the second Carbon Monoxide Maintenance Plan, which shows that we will maintain the carbon monoxide standard through 2025. In fact, our region has been way below the standard for years. Trends this year show we are 72 percent below the national standard.

There have been no violations of the one-hour carbon monoxide standard since 1984 and the eight-hour standard since 1996. In 2005, the EPA determined the region met the federal air quality standards for carbon monoxide.

Carbon monoxide levels
in the region are

72%
BELOW

the national standard.

Ozone. While ozone also has been well controlled in our region, the EPA recently tightened up the standard for acceptable ozone concentrations. Ground-level ozone pollution can be a direct threat to human lungs and can trigger asthma. MAG worked with the Maricopa County Air Quality Department and the Arizona Department of Environmental Quality to encourage residents to take proactive steps to reduce ozone, such as refueling after dark, driving less, and using water-based paints.

While everyone can do their part to reduce ozone, MAG and its partners have been working to communicate concerns regarding the new ozone standard to the EPA. One difficulty is background ozone. Background ozone comes from a variety of natural sources: plants, trees, wildfires, even major storms that can pull ozone from the stratosphere to lower levels. Naturally occurring ozone levels are so high in our state that legal challenges have been made to contest the new ozone standard.

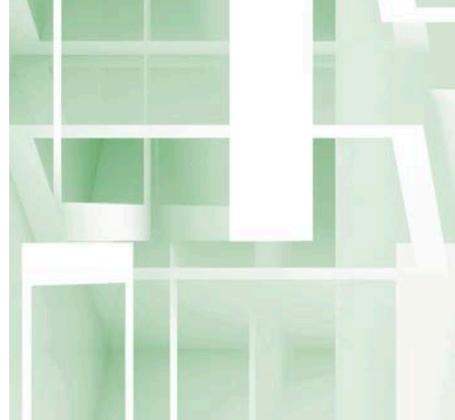
Dust. The EPA has approved the air quality plan that has resulted in our region achieving compliance with the health-based standard for dust. In 2015, there were no exceedances and no exceptional events involving dust known as PM-10 (particulate matter 10 microns in diameter or less). The region also remains in attainment of the air quality standard for smaller dust particles known as PM-2.5 (particulate matter 2.5 microns in diameter or less).

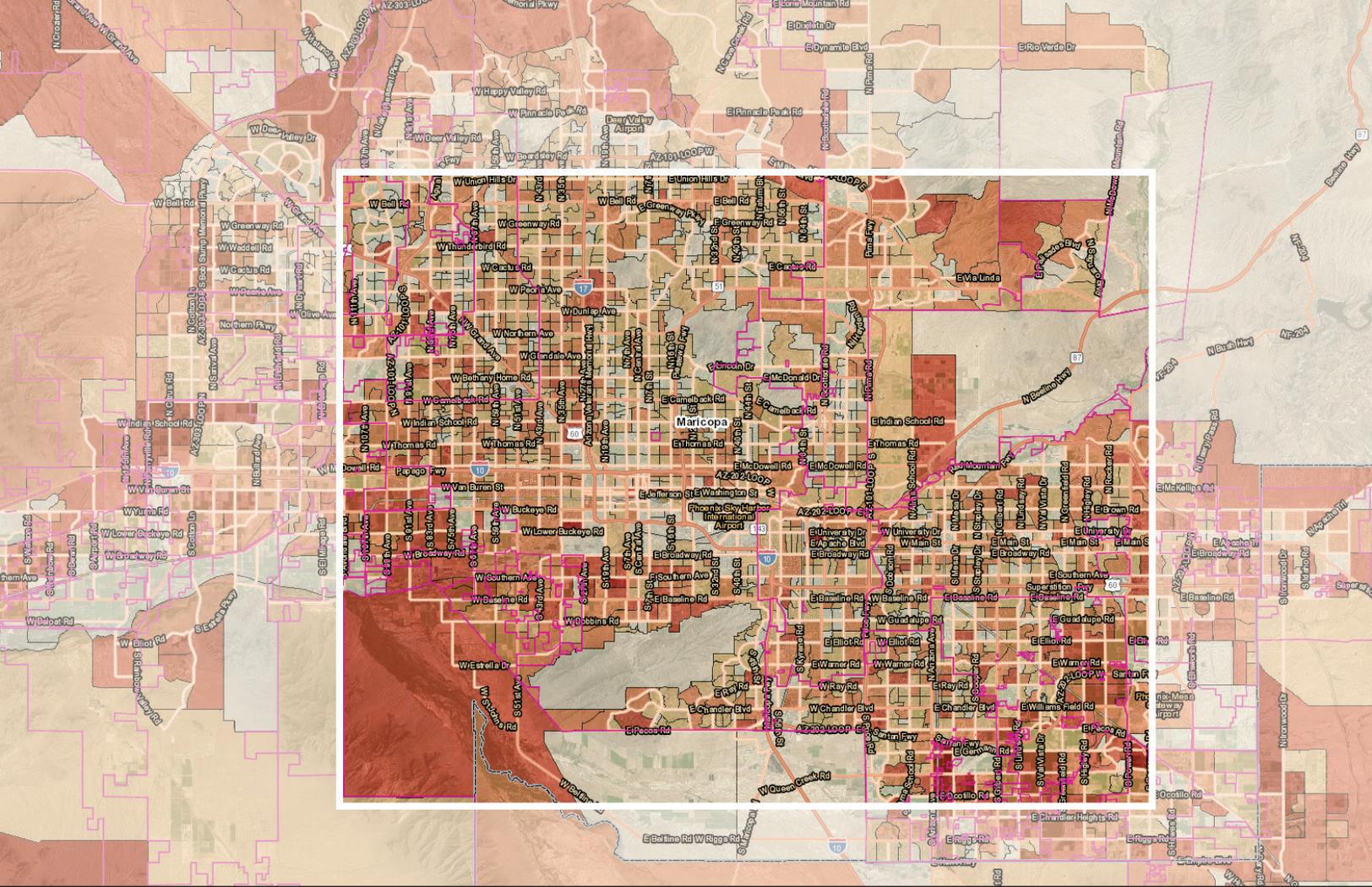
Water Quality Management Plan Process

During the great recession, the housing and development industries suffered significantly. To help this vital industry recover, MAG worked with the Arizona Department of Environmental Quality to drastically streamline the process for adding new wastewater treatment plants.

As part of its required duties, MAG develops a regional water quality management plan. The plan must meet the requirements of Section 208 of the Federal Clean Water Act. To ensure the plan meets the wastewater treatment needs of the region for 20 years, local governments work with developers wanting to add new plants.

Together, the agencies were able to identify a bold approach that cuts the process from 18-24 months down to nine months—a 50 to 63 percent reduction in the overall timeline. The process will help the business community build projects faster and be more globally competitive, while maintaining the integrity of the MAG 208 plan.





RESEARCH MATTERS

MAG conducts extensive applied research to accomplish its core mission of strengthening the Greater Phoenix region and the state of Arizona. MAG serves the region's data needs through a variety of tools and services. These include an online data center, interactive mapping tools, and extensive committee work that uses the information to frame public policy. This research assists MAG with planning and results in real outcomes that help us compete and improve our economy.

“Big Data”

“Big data” refers to extremely large datasets that can be analyzed to reveal patterns in areas such as human behavior. MAG is in a unique position to collect a wide variety of information. This can range from population and demographic information to highly detailed trends in travel behavior. MAG then analyzes the information and creates online maps anyone can use to get important information about the region or their community.



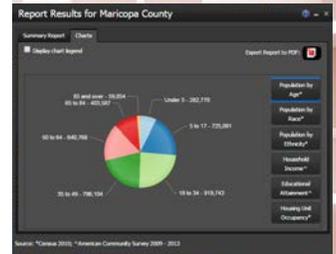
Real Life Applications

Whether you are a government or an individual, information is power. For example, traffic patterns that show where people live and work can help cities and towns figure out how best to meet their residents' transportation needs. They can use this information to attract new businesses and keep their talent close to home. On the other hand, businesses, nonprofit groups, or places of worship can use the demographic maps to fine-tune their outreach to nearby residents.

MAG's work is highly regarded not just in Arizona, but in the United States. MAG's research can be applied in broad contexts, such as joint efforts with other metropolitan planning organizations in Arizona and beyond. It also can be used for specific projects or grant applications, such as the national Strategic Highway Research Program (SHRP2). This project helps expedite key global transportation projects in the Intermountain West.

Supporting Educational Research Efforts

To help secure local government support and be nationally competitive, MAG signed a Memorandum of Understanding (MOU) with Arizona State University, Maricopa Community Colleges, Northern Arizona University, the Thunderbird School of Global Management and the University of Arizona, to support research, innovation and entrepreneurial grant proposals. This agreement is already paying off. The support of local governments enabled Arizona State University to win a National Science Foundation grant that brings \$18.5 million into the region over the next five years.



100
terabytes

Amount of data currently
stored by MAG





Central Avenue in downtown Phoenix.

ECONOMIC DEVELOPMENT MATTERS

63,000
estimated jobs
in the region come from
830 internationally
owned businesses

MAG matters in improving economic development in the region. During the Great Recession, MAG learned that building a thriving economy is a key purpose for a well-developed transportation system. The MAG Economic Development Committee has been working on a number of initiatives to improve the regional economy. Here are just a few:

West Valley Vision

West Valley Vision is a partnership to help the region become more competitive in the global marketplace. MAG completed the first two-year phase of the project, which looked at current conditions and identified opportunities for economic growth. Workforce development is the focus for phase two. MAG has provided West Valley communities with a detailed analysis of where people live and work. Early findings show about half of residents travel to jobs outside of the West Valley. The data will help West Valley communities strategically target business development that could use the existing talent and allow West Valley residents to work closer to home.

Early Literacy

MAG matters as an important information resource, providing valuable data to shed light on economic trends and opportunities. MAG's interactive online maps range from population and demographics to trip patterns and even bike trails. This year, MAG expanded its map choices to include early literacy. MAG, in partnership with Read On Arizona and Virginia G. Piper Charitable Trust, produced an online tool called "MapLIT." The map uses census, school, health, and family engagement information to identify literacy results at elementary and preschool sites. The map displays school test scores and demographics for public and charter grade schools throughout Arizona. Communities and parents can determine where literacy gaps exist and where schools are improving reading skills.

Improving International Trade

MAG continues to look at ways to attract foreign direct investment in the region with strategic international markets and to enhance trade with Mexico and Canada. In April, the MAG Regional Council joined partners statewide to offer support for a federal grant request submitted by the Arizona Department of Transportation. The grant would accelerate critically-needed improvements connecting State Route (SR) 189 to Interstate 19 in the border community of Nogales, Arizona. The project would relieve congested freight traffic at a vital commerce connection.

MAG also continued the statewide tourism and shopping initiative. This effort would allow thousands of low-risk visitors from Mexico with border crossing cards to travel throughout Arizona. Participants in this program have undergone thorough background checks to allow frequent travel at land ports of entry. Expanding the travel zone from 75 miles to the entire state could generate an estimated \$181 million for Arizona's economy each year.

MAG also worked with the Thunderbird School of Global Management to identify ways to enhance [ConnectBIEN.com](http://www.ConnectBIEN.com). BIEN stands for Building an International Economic Network. ConnectBIEN is an online resource to help small and medium-sized businesses in Arizona, Mexico and Canada connect to supply chains and distribution networks.

Workforce Development

Each year, nearly 140,000 high school students in Arizona prepare for employment through career and technical education (CTE) programs. Statistics show that 98 percent of CTE students will graduate from high school, compared to the overall state average of 77 percent. Many find jobs within weeks of graduation.

Career and technical education is a vital investment in our future workforce. Training students in their areas of interest keeps them here in Arizona, contributing to our economy.

The Greater Phoenix Chamber of Commerce and MAG gathered the Valley's leading voices to discuss ways to strengthen CTE programs. The "Opportunity Arizona" event brought awareness of the high-earning, highly technical career paths available to students and employers. MAG produced videos that highlighted the impact these programs make in students' lives. Four students in very different programs learned job skills that prepared them to enter the workforce. See their stories at <http://www.azmag.gov/Communications/> under MAG Video Outreach.





COMMUNITY SUPPORT MATTERS

\$26 million
in regional homeless
assistance funding
this year

MAG is a leader in improving the quality of life within the region. MAG champions many efforts aimed at strengthening communities and supporting people. These include keeping people safe from domestic violence, ensuring they have access to homeless services, and helping them remain connected with their communities at every age.

Domestic Violence

Domestic violence can be deadly for abuse victims and the law enforcement officers trying to help them. In 2015, more than one hundred people in Arizona died due to domestic violence, including one member of law enforcement. MAG continues to lead efforts to outline best practices for law enforcement when arresting domestic violence abusers. These best practices are contained in the MAG Regional Misdemeanor Domestic Violence Protocol Model.

Police departments within the region were using many different methods in dealing with domestic violence offenders. MAG helped to streamline the number

of policies from 106 to just 34 key strategies. These include using questions known as “lethality assessments” when interviewing domestic violence victims. These questions help on-scene officers identify victims at highest risk of being killed.

Domestic violence calls are some of the most dangerous and expensive calls police receive. By successfully prosecuting offenders, we can save victims and reduce repeat calls to law enforcement. The lives of domestic violence victims matter, and the work MAG is doing in this arena matters to us all.

Homeless Funding

The region’s most vulnerable residents will benefit from funding secured by the MAG Continuum of Care to serve people experiencing homelessness. Fifty-five programs will receive funding through a \$26.9 million award provided by the U.S. Department of Housing and Urban Development (HUD). From housing and support to a “coordinated entry” program to better assess and refer individuals seeking homeless services, the funding offers resources to those most in need. A key goal is to get resources for people experiencing chronic homelessness or those with other acute needs.

Heat Relief Network

The extreme summer heat in Arizona can be deadly. That’s why MAG works with municipalities, nonprofit organizations, and the faith-based community to coordinate the Heat Relief Network. The Heat Relief Network partners with providers offering water donation sites, hydration stations and refuge locations across the region. MAG develops maps of these locations to help people find donation sites and assistance.

The goal of the Heat Relief Network is to increase awareness of the dangers of extreme heat and to coordinate resources for those in need. While anyone can be affected by extreme heat, those experiencing homelessness and adults on a fixed income—who often sacrifice air conditioning to save on utilities—are at high risk. The Phoenix area averages 110 days of temperatures above 100 degrees, and as a result, many people suffer from heat-related illness.

Connecting Older Adults

The Arizona Age-Friendly Network, hosted by MAG, is a coalition of people and organizations dedicated to connecting older adults with people of all ages throughout Arizona. The network supports communities that want to enhance meaningful connections among generations. It helps connect people with information, resources, and each other through the project’s website, www.Connect60Plus.com.

MAG believes older adults are a valuable resource, whether providing ongoing expertise in the workplace or transferring knowledge to others when they retire. They represent an untapped opportunity to stimulate the region’s global economy and they play a vital role in making the region a dynamic place to live.





MAG arranged a news conference to show support for improvements connecting State Route (SR) 189 to Interstate 19.

COMMUNICATION MATTERS

Public participation is vital to transportation planning. Understanding your priorities helps us make better transportation decisions that meet the needs of all people. Our goal is to develop transportation facilities and services that fit harmoniously into communities.

We know that people lead busy lives. That is why we use many outreach methods. These include public events, small and large group presentations, web, social media, and videos to provide information and get feedback.

All Voices

MAG works to ensure that the input we receive includes participation by all residents of our region. This includes people who are protected under Title VI of the Civil Rights Act of 1964 and other laws, such as the Americans With Disabilities Act and age discrimination protections. MAG and Valley Metro often work together to provide information and training to people with disabilities to help them understand and use the public transit system. Our disability outreach associate provides



110,702
users visited the MAG
website this year

materials in formats such as braille and large print, while our community outreach specialist translates key materials into Spanish.

Information Booths

MAG hosts information tables at a variety of public and family-focused events to tell people about the transportation planning process and how to get involved. During these events, MAG uses surveys to give people a way to voice their opinions about transportation and their top regional priorities.

Video Outreach

The MAG Video Outreach Program engages people through fast-paced, information-packed videos to help tell our story and better illustrate our roles and responsibilities. These videos also document key milestones and activities. Among the 19 videos produced this year were a domestic violence training video for law enforcement, and five videos profiling students participating in career and technical education programs. To help the public navigate the public comment process, MAG also produced a video explaining how to fill out comment cards to speak before MAG committees. The video plays before every MAG policy committee meeting.

Get Involved

MAG wants to hear from you! MAG frequently holds public meetings, workshops and other opportunities for you to share your vision for our transportation future and other MAG program areas. Your input is shared with decision makers to help them develop plans that best meet the needs of residents and the region. For more information, contact a member of our public involvement staff at (602) 254-6300.

If you have additional suggestions on how we can best reach out, please visit us online at www.azmag.gov, follow us on Twitter at twitter.com/MAGregion, or friend us on Facebook. You can see our videos on YouTube at youtube.com/magcommunications.



MONEY MATTERS

Funding for MAG's programs and activities comes from a variety of sources, with federal and state funding making up the main revenue source. Membership dues and special assessments are received from each member agency based on population, and provide another source of revenue to support MAG's regional activities.

MAG plans for more than \$863.8 million in total regional funding, including funding for the freeway program.

MAG's FY 2017 Unified Planning Work Program and Annual Budget is \$30.8 million, which includes an operating budget of about \$22.5 million. The difference is due to carry forward consulting contracts and pass-through agreements with other agencies.

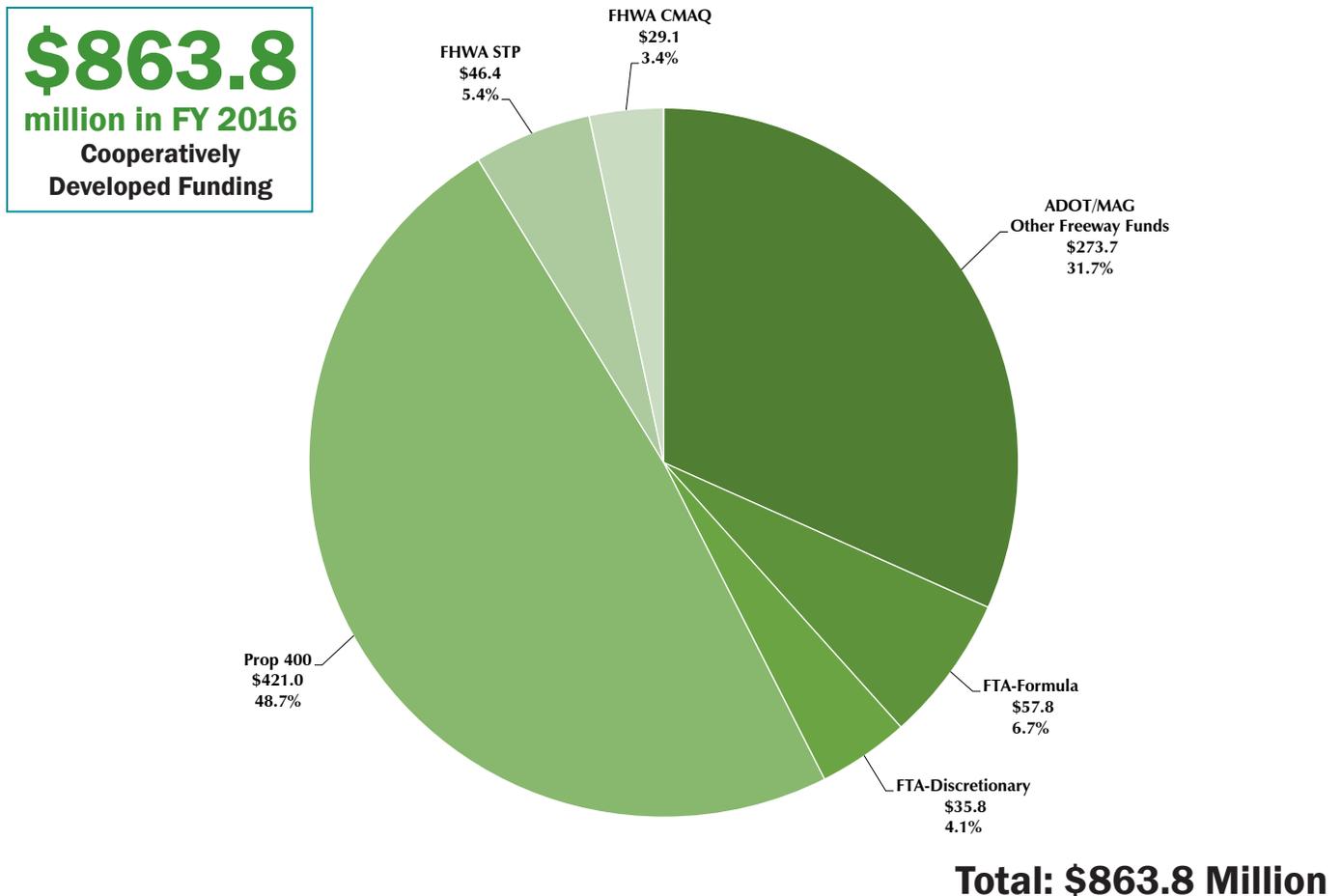


FY 2017 Unified Planning Work Program & Annual Budget
May 2016



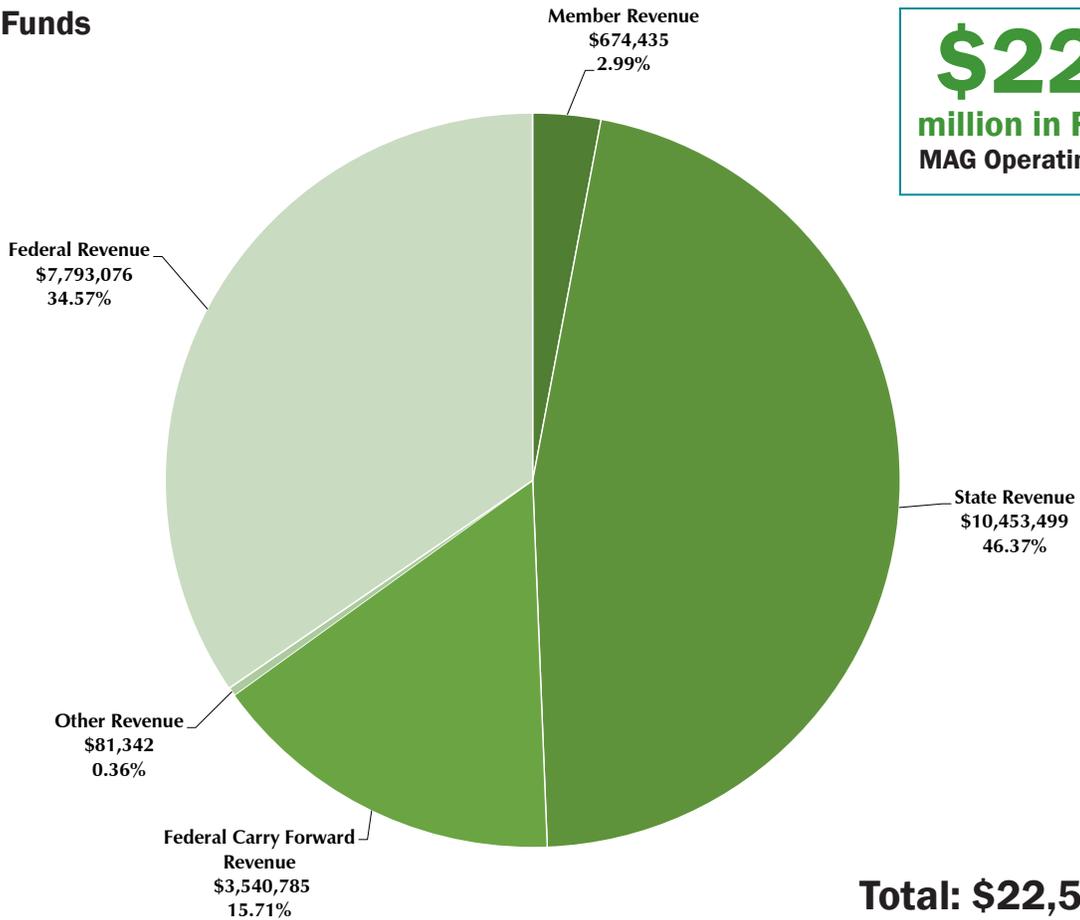
MARICOPA ASSOCIATION of GOVERNMENTS
302 North 1st Avenue, Suite 300, Phoenix, Arizona 85003

Cooperatively Developed Funding (in Millions)



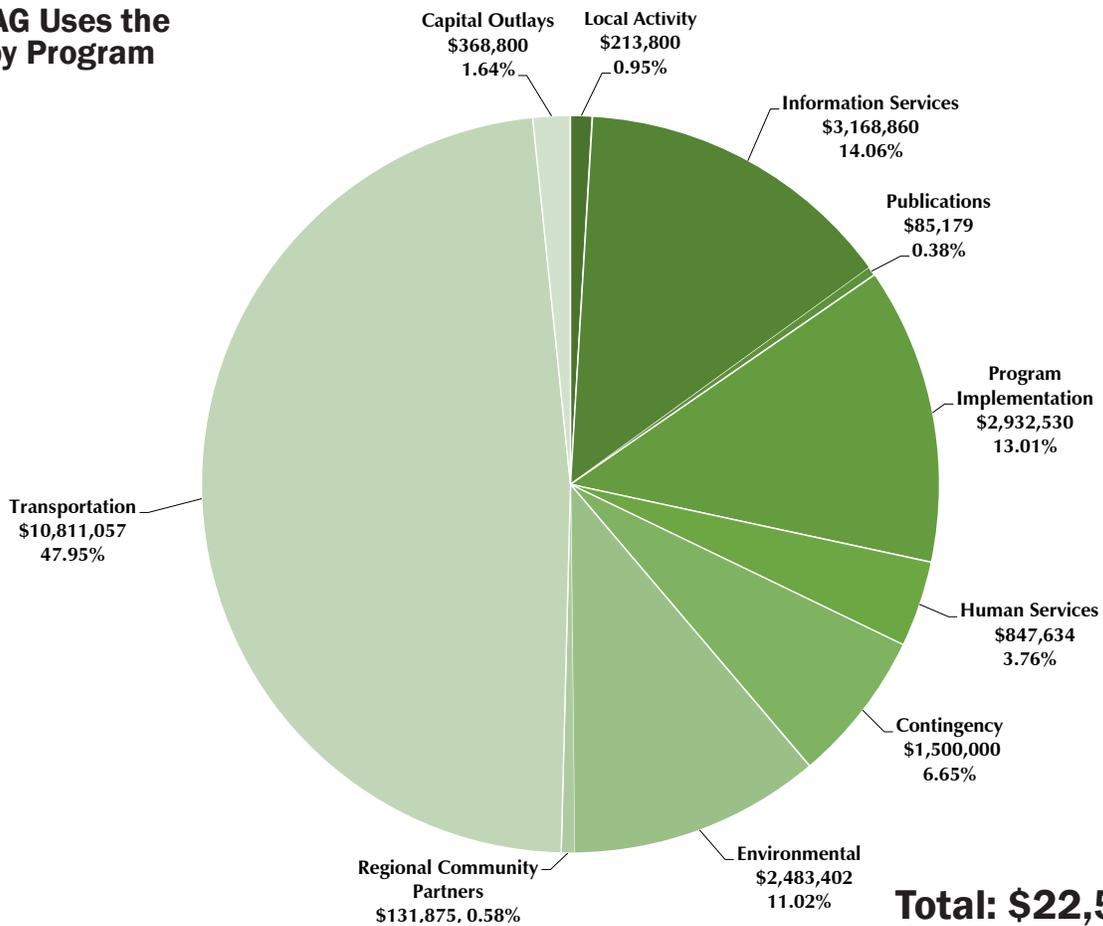
Source of Funds

\$22.5
million in FY 2016
MAG Operating Budget



Total: \$22,543,137

How MAG Uses the Funds by Program



Total: \$22,543,137



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