MAG PROGRAMS IN BRIEF

FY 2011-2012 Summary

Unified Planning Work Program & Annual Budget

May 2011

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

Budget Highlights

The MAG annual budget process begins eight months before the final budget is adopted, however, budget management activities at MAG continue throughout the year. To begin preparing the budget, each division is asked to submit new project and/or staffing requests. These requests are initiated by MAG committee project needs and other requests and guidance from our members. The requests are brought to the Regional Council, Management Committee, Regional Council Executive Committee, and Intergovernmental Representatives for review and discussion during January and February.

New Projects for FY 2012

Communications Program

Don't Trash Arizona Litter Prevention and Education Program **$300,000**

Concern over unsightly freeway litter led elected officials to cite litter education and prevention as an important component of the Regional Transportation Plan funded by voters in 2004. The objective of the Litter Prevention and Education program is to improve safety and aesthetics along the highway system in the MAG region by increasing awareness of the economic, safety, and health impacts of littering and to encourage motorists to dispose of trash properly.

In 2006, litter prevention and education efforts were begun by the Maricopa Association of Governments (MAG) and the Arizona Department of Transportation (ADOT) to address roadway litter. The slogan Don't Trash Arizona was selected and is used cooperatively by MAG and ADOT to increase public awareness of the roadway litter condition, and the two agencies work together on efforts to decrease roadway litter.

The Regional Council action of September 24, 2008, selected the consultant to develop the FY 2009 litter prevention and education program. The action included a provision that the base contract period shall be a one-year term but that MAG may, as an option, offer to extend the period of this agreement up to a maximum of two (2), one (1) year options, based on consultant performance and funding availability. The available extension options have been utilized, carrying the project through November 2012. A new Request For Proposals will need to be issued in order to continue the education and prevention efforts in FY 2012.

MAG Disability Outreach Associate **$20,000**

Federal transportation law requires that environmental justice be part of any transportation plan to prevent discrimination and to ensure the full and fair participation of minority populations and low-income populations in the transportation decision-making process. MAG implemented the Associate Outreach program in 2001 to provide targeted outreach to Title VI communities, including the disability community. The Disability Outreach Associate serves as a liaison between MAG and the disability community, developing methods to engage the community in the transportation planning process, while achieving high levels of participation from the community and securing participation and promoting activity in the planning and programming process.

Video Outreach Associate **$58,000**

Associate assists in implementing the MAG Video Outreach Program by providing writing, direction, preproduction, production, and post production services along with project management. Approximately five videos would be produced within a 12-month time frame.

Support Citizen Engagement **$25,000**

The goal of this project is to encourage and support citizen engagement by offering meaningful opportunities for members of the public to provide feedback that will impact transportation planning. This project will include public engagement and community needs assessment granting consideration to Title VI and Environmental Justice populations.

Environmental Program

2012 Air Quality Technical Assistance On-Call **$280,000**

As the designated Regional Air Quality Planning Agency for the Maricopa area, the Maricopa Association of Governments conducts air quality modeling and prepares air quality plans to attain and maintain the National Ambient Air Quality Standards. In September 2009, the Environmental Protection Agency announced that the eight-hour ozone standard established in March 2008 (0.075 parts per million) was being reconsidered and a final decision will be issued by July 31, 2011. A new Eight-Hour Ozone Plan is then required by 2013. As approved by the MAG Regional Council on May 23, 2007, MAG will also be issuing a report on the status of the implementation of the committed measures in the MAG Five Percent Plan for PM-10 by the cities, towns, Maricopa County, and the State each year. MAG will also be conducting an inventory of dirt roads and the estimated traffic counts by jurisdiction to measure the progress in eliminating dirt roads each year. On September 9, 2010, the Environmental Protection Agency (EPA) published a notice proposing partial approval and disapproval of the MAG 2007 Five Percent Plan for PM-10 based on the timetable in the consent decree with the Arizona Center for Law in the Public Interest. It will be necessary to address the approvability issues identified by EPA. Consultant expertise will be needed in the following technical air quality areas: air quality modeling; air quality monitoring and

meteorology; exceptional events; traffic surveys and emissions inventories; dirt road inventories and tracking progress made to pave dirt roads; statistical analysis of data; collection and analysis of field data; analysis of control measures; implementation of control measures; tracking implementation of committed control measures; air quality plan preparation; Congestion Mitigation and Air Quality (CMAQ) evaluation methodologies; and transportation conformity. Consultant expertise may also be needed for an analysis of greenhouse gas requirements and emissions. The National Association of Regional Councils and Association of Metropolitan Planning Organizations have indicated that greenhouse gas requirements for metropolitan planning organizations may be included in the transportation reauthorization.

2012 MAG Air Quality Associate $130,000
As the designated Regional Air Quality Planning Agency for the Maricopa area, the Maricopa Association of Governments conducts air quality modeling and prepares air quality plans to attain and maintain the National Ambient Air Quality Standards. Technical assistance from a MAG Associate will be needed in the following technical air quality areas: air quality modeling; air quality monitoring and meteorology; exceptional events; traffic surveys and emissions inventories; dirt road inventories and tracking progress made to pave dirt roads; statistical analysis of data; analysis of control measures; implementation of control measures; tracking implementation of committed control measures; air quality plan preparation; CMAQ evaluation methodologies; and transportation conformity. On September 9, 2010, the Environmental Protection Agency (EPA) published a notice proposing partial approval and disapproval of the MAG 2007 Five Percent Plan for PM-10 based on the timetable in the consent decree with the Arizona Center for Law in the Public Interest. It will be necessary to address the approvability issues identified by EPA. The new EPA MOVES model will need to be integrated into the MAG air quality modeling and analyses. Technical assistance may also include an analysis of greenhouse gas requirements and emissions. The National Association of Regional Councils and Association of Metropolitan Planning Organizations have indicated that greenhouse gas requirements for metropolitan planning organizations may be included in the transportation reauthorization legislation.

Transportation Programs

Regional Pavement Management System On-Call $50,000
This project will build on the MAG Roadway Operations and Maintenance Costs Study. It will provide more detailed information on Agency Pavement Management Systems and agency assessments of their unfulfilled Pavement Management Systems needs, review national practices and standards in the implementation of pavement management systems, compare these against those used by member agencies in the Region, and review and assess strategies to meet member agency pavement management needs.

A key objective of this study will be to determine if there is a need and interest in developing and implementing regional strategies to address pavement management. These could include: technical assistance to member agencies in initiating and implementing a Pavement Management Systems, the sharing of equipment for Pavement Management Systems activities, and possibly the identification of a funding mechanism for improving member agency pavement management systems.

2012 Traffic Signal Optimization Program On-Call $400,000
Projects launched through this program provide technical assistance to member agencies for improving traffic signal coordination, optimization, and review of operations through simulation modeling. Assistance is provided by local consultants hired by MAG through an on-call services contract. The MAG Traffic Signal Optimization Program (TSOP) has completed nearly 50 projects and has provided services to many MAG jurisdictions.

Most of these projects result in immediate system improvements in efficiency and safety and are recognized nationally as having the highest benefit to cost ratios for any transportation project. This program has been championed by the MAG Intelligent Transportation Systems Program to provide traffic engineering assistance for refining signal operations across the MAG region. It is also one of the strategies identified in the MAG Regional Concept of Transportation Operations. Projects generally cost up to $30,000, and do not require a local match. The program also provides an annual training workshop for member agency staff on the use of the computer software SYNCHRO for optimizing traffic signal timing.

The MAG FY 2011 to FY 2015 Transportation Improvement Program (TIP) includes $298,865 in CMAQ funds for TSOP. This request provides an additional $101,135. Starting in FY 2012 all TSOP projects will include a before and after evaluation component.

2012 Transportation Planning Services On-Call $250,000
Initiated in FY 2009, the Transportation Planning Services On-Call has allowed for expediting the delivery of consultant services in the following five service areas: civil engineering, transportation planning, transportation operations, policy and finance, and public involvement. The selection process occurred in FY2010 where 37 firms submitted Statements of Qualifications for the agreement, and six were selected. The six agreements are good for a two-year period that would conclude in calendar year 2012.

Access Management Outreach On-Call **$30,000**

Access management is the systematic control of the location, spacing, design, and operation of driveways, median openings, interchanges, and street connections to a roadway. The purpose of access management is to provide vehicular access to land development in a manner that preserves the safety and efficiency of the transportation system.

By managing access, government agencies can increase public safety, extend the life of major roadways, reduce traffic congestion through improved traffic flow, support alternative transportation modes, and improve the appearance and quality of the built environment. When implemented effectively, access management provides a cost-effective approach to meeting transportation needs. Results of successful implementation of access management techniques include:

- Allowing motorists to operate vehicles with fewer delays, fewer emissions, and less fuel consumption.
- Providing reasonable access to properties.
- Maintaining the functional integrity and efficiency of the roadway.
- Protecting investments in infrastructure.
- Coordinating transportation and land use decisions.

Inadequate access management can be costly for government agencies, taxpayers, and businesses. As road conditions deteriorate, cities and towns are forced to build new roads or rehabilitate and retrofit existing roadways. Reconstructing major roadways is costly and disruptive to the public, abutting homes, and businesses. Access management programs slow the deterioration of roadways and protect taxpayer investments in infrastructure. Programs seek to limit and consolidate access along major roadways, while promoting a supporting street system and unified access and circulation systems for development. When implemented effectively, access management provides a cost-effective approach for accomplishing transportation goals, which benefits the general public as well as government agencies and taxpayers.

2012 Bicycle Education Program **$165,000**

The MAG FY 2011-2015 Transportation Improvement Program includes $165,000 of federal highway funds for bicycle education. MAG is proposing that this funding be used for the following four (4) bicycle education efforts.

Bicycle Education for Law Enforcement Agencies: This project will develop a modular educational program for at least 15 training sessions comprising six (6) modules with each module covering Arizona laws related to bicycling and dangerous riding and "do's and don'ts" for bicyclists. Each module is designed to be delivered in 5-10 minute segments to police officers during regular briefing meetings. Educational materials will contain content similar to materials already developed for bicyclists by ADOT, Valley Metro, and the League of American Bicyclists and will be reviewed by the staff attorney of the Coalition of Arizona Bicyclists. This project will also include an instructor/trainer manual to facilitate consistent presentations. Budget for instructor manuals (20 copies), participant materials (200 sets), assembly and review of content and pilot course presentations: $15,000.

Get Ready to Ride: This program will consist of a three to four hour combination of classroom, hands-on, and on-bike education and training, designed to better prepare novice to intermediate bicyclists to more confidently and safely ride a bicycle on the streets. Each course will be conducted by a League of American Bicyclists certified instructor. In addition to the instruction during the program, participants will be given materials covering safe bicycling techniques and Arizona laws related to bicycling. A total of 24 courses will be conducted at locations around the Valley to achieve broad geographic coverage. Courses may be staged at public facilities (parks, community centers) and/or bicycle shops. Budget for advertising/promotion, trainer compensation, and course materials: $24,000.

Bicycle and Pedestrian Count Project: According to the National Bicycle and Pedestrian Documentation Project, the lack of empirical data on demand and usage is one of the greatest challenges facing the non-motorized transportation field. Without accurate and consistent demand and usage figures, it is difficult to measure the benefits of investments on these modes. The MAG region needs an effective methodology to count bikes and determine trip generation, while taking into consideration the region's size, topography, and weather. The consultant will work with the MAG Bicycle and Pedestrian Committee members for this project. Budget for consultant services: $50,000.

Bicycle Education on Buses and Bus Shelters: This project will print and install bicycle education posters on buses in the various sizes for the back and side bus display panels. The posters will be displayed throughout the year on 353 buses. Each poster will run for one month. Budget for posters for buses: $76,000.

Pedestrian and Bicycle Facilities Design Assistance Program **$300,000**

The Pedestrian and Bicycle Facilities Design Assistance program was initiated in 1996 to encourage the development of designs for bicycle and pedestrian facilities according to the MAG Pedestrian Policies and Design Guidelines and the MAG Regional Bikeway Masterplan. The intent of the program is to stimulate integration of bicycle and pedestrian facilities into the transportation infrastructure.

Southwest Valley Local Transit System Study **$280,000**

The study will identify opportunities and strategies for developing an integrated local transit system in the southwest valley.

Recent transit circulator studies completed for the cities of Avondale and Goodyear will be incorporated into a larger subarea strategy to improve mobility options by connecting population and employment centers, existing and planned transit services and facilities, retail centers, and public facilities. Additional communities that may participate in the study are Litchfield Park, west Phoenix, Tolleson, and the surrounding portions of Maricopa County. Due to declining regional transit funding, the study will also explore opportunities to: 1) improve the efficiency of existing transit service; and 2) implement transit circulators as both an alternative and a supplement to planned "super-grid" bus service in the southwest valley.

DynusT Model Data Conversion Tool On-Call **$50,000**
The DynusT Regional Operations Planning Model needs to incorporate actual intersection traffic signal timing in order to improve its simulation accuracy. Traffic signal timing affects the travel time of travelers and hence the route choice decisions made by them. The signal timing in different local agencies are available in a number of different formats. Due to the size of the MAG region, the number of signalized intersections involved, and the number of timing plans used at each intersection, it is not feasible to manually enter all of this information in the regional DynusT model. This project will provide MAG with the capability of automatically importing the signal timing into the DynusT model from different timing files and formats obtained from MAG member agencies.

DynusT Regional Operations Planning Model Enhancements On-Call **$80,000**
The current DynusT model was developed through an in-house effort and has been calibrated for the morning peak period. The initial purpose of the in-house effort was to verify the reliability, efficiency, and usefulness of the DynusT model through a real-life crash scenario. Enhancements to the model are now needed to expand the current model and to be able to handle future investigations utilizing this model. One such enhancement is the ability to perform a thorough check of the transportation network coding based on the latest GIS map. Another enhancement is the ability to calibrate against observed truck and HOV traffic.

Evaluation of Adaptive Traffic Control Systems and Implementation Considerations On-Call **$100,000**
This study will gather information on proven Adaptive Traffic Control Systems (ATCS) that are installed and operational in various cities in the US and in other countries. The different systems will be reviewed and evaluated from a performance perspective and also for possible implementation by local agencies in the MAG region. The study will consider compatibility issues related to existing traffic signal system hardware and software, and also identify staff expertise and resource considerations pertinent to the operation and maintenance of these systems.

Mesoscopic to Microscopic Conversion Tool On-Call **$30,000**
This project will provide MAG with a tool that is capable of converting the output from the DynusT Regional Operations Planning Model for input to the microscopic simulation tool VISSIM for more detail analyses and visualization. Macroscopic, Mesoscopic, and Microscopic models all have their unique characteristics and perform at different levels of detail. The Meso model is not sufficient in visualization and in depicting some of the difference in lane utilization. The Micro model is not sufficient in deciding the time dependent volumes and considered less cost effective. Multi-resolution modeling utilizes specific model or combinations of models for specific problems we deal with. It can provide sufficient details for decision making and not over commit limited resources. As a result, we can expand our planning capabilities and make more informed decisions about the future.

Gila Bend Small Area Transportation Study **$95,000**
The Gila Bend Small Area Transportation Study will formally accept and incorporate the recommended transportation framework identified in the MAG Interstates 8/10 Hidden Valley Transportation Framework Study as part of the Town of Gila Bend's transportation network. The study will also inventory current conditions, identify deficiencies, forecast needs, develop transportation policy, and identify and analyze alternative solutions that will increase mobility and access for commuters and freight throughout southwest Maricopa County.

2012 MAG Airport Travel Model Update and Data Collection **$400,000**
The MAG Regional Travel Forecasting Model includes the Phoenix Sky Harbor International Airport sub-model that forecasts ground travel to the airport. The model is based on the 2005 airport ground survey. In order to update the model and ensure currency of the forecast, a new ground survey is required with the subsequent model update to the new datasets. This project will also collect data and update and improve the travel forecast for the Phoenix-Mesa Gateway Airport. The project is important for the overall quality of the regional transportation and transit forecasts in particular.

Vehicle Occupancy Study **$200,000**
The MAG Regional Travel Forecasting Model requires periodic validation of the forecast with independent traffic data. The traffic data is also a crucial component required for the regional transportation system analysis and performance measurement. MAG has been conducting auto occupancy studies since 1973 with the last one performed in 2006. In order to update the occupancy profile, account for the recent socio-economic changes in the region, and provide for continued comparison of the occupancy rates and analyze new trends and patterns, a new study is required. Another important set

of study goals is related to the analysis and evaluation of HOV lanes performance in the region. The regional HOV network has expanded since the last study, as well as a new economic reality shaping different trends in terms of auto occupancy and mode of travel. The study will also collect vehicle classification data for model validation purposes.

Designing Transit Accessible Communities **$200,000**
Transit usage in the MAG region is primarily through pedestrian access. However, very little federal funding is currently utilized toward promoting the comfort and ease of access for the pedestrian transit user. This would be a "TOD-lite"(Transit Oriented Development) research project in that it will focus on local and regional bus services and not high capacity transit. Another study outcome to would evaluate increasing accessibility to housing, goods, services, and recreation for the pedestrian transit user. While high capacity transit may not yet be an option for an area or corridor, a development pattern that is geared toward pedestrian and not automobile access can serve as a measure toward high capacity transit.

Information Services Program

Digital Aerial Photography **$80,000**
MAG and MAG member agencies use digital aerial photography for a variety of planning and GIS purposes. In this rapidly developing area, it is important to have up-to-date imagery to track development and land use and to plan for future growth in both Maricopa and Pinal Counties. This project also provides the digital aerial photography to member agencies at no additional cost to the member agency.

Data and GIS Consultant Support for MAG On-Call **$250,000**
MAG is in the process of collecting geospatial data that will be used for socioeconomic modeling activities. Much of this data, including seasonal transient population, mobile home and RV park population, apartment buildings, and other data sources to support modeling and analysis, are not readily available from commercial sources and must be collected and compiled and subsequently maintained and disseminated to MAG member agencies and the public by MAG staff. The development and maintenance of these geospatial data will be made more efficient and of higher quality with consultant support to provide data collections, technical guidance, custom tools, and procedures to Information Services staff. Support in the dissemination via web-based resources of geospatial data maintained by MAG and of the results of the 2010 Census and 2012 Socioeconomic Projections via web-based tools will be also be an essential task over the next several years requiring consultant knowledge and support.

MAG Consultant Support for AZ-SMART Enhancement On-Call **$350,000**
MAG is in the process of developing a statewide socioeconomic model, Arizona Socioeconomic Modeling, Analysis and Reporting Toolbox (AZ-SMART). The AZ-SMART socioeconomic modeling suite will primarily support socioeconomic activities at MAG. MAG staff has now completed Phase I of the implementation, which involved incorporating many of the features of a model that MAG currently uses, the Subarea Allocation Model (SAM). The next phase of the project involves enhancements to the current modeling environment to incorporate business location choice, demographic evolution, and development dynamics. The AZ-SMART suite of models and tools will be used in the development of the next set of MAG Socioeconomic Projections in 2012. Data output from the socioeconomic models is a key input into the transportation modeling process. Since MAG is implementing Activity Based Travel Models, the socioeconomic models need to respond to new/changed data requirements. Consultant support will be needed to provide detailed technical guidance, development of new models and methods, support for the implementation and testing of the new components of AZ-SMART.

Human Services Program

2012 HUD Application Support **$2,500**
2012 HUD Applications Support-MAG Associate provides technical assistance to the MAG Continuum of Care Regional Committee on Homelessness' application to the U.S. Department of Housing and Urban Development for Stuart B. McKinney funds for homeless assistance programs. In addition to providing technical assistance to staff to complete and review the application, the Associate provides technical assistance to the new project applicants in order to help the region bring in more funding for new permanent supportive housing programs.

MAG FTE by Division

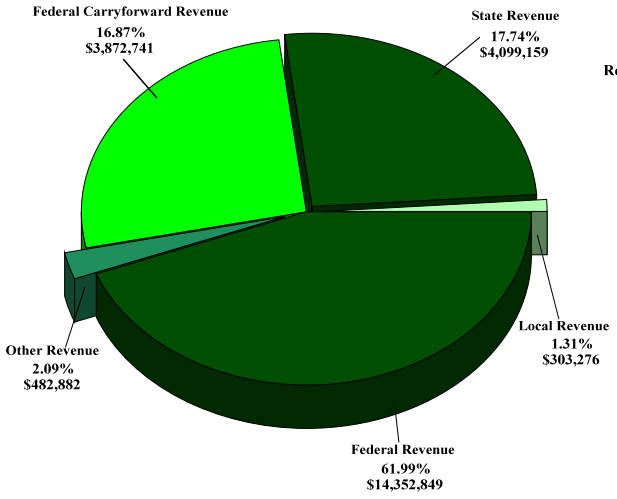
Summary of Authorized Positions and Full-time Equivalents by Program Area Comparison for 3 Years

	FY 2010	FY 2011	FY 2012
Administration	4	4	4
Financial Services	7	7	7
Environmental Programs	11	11	11
Human Services	5	5	5
Transportation	27	29	31
Communications	5	5	5
Information Services	12	13	14
Information Technology	4	6	6
Office Services	5	6	6
TOTAL FTE	**80**	**86**	**89**

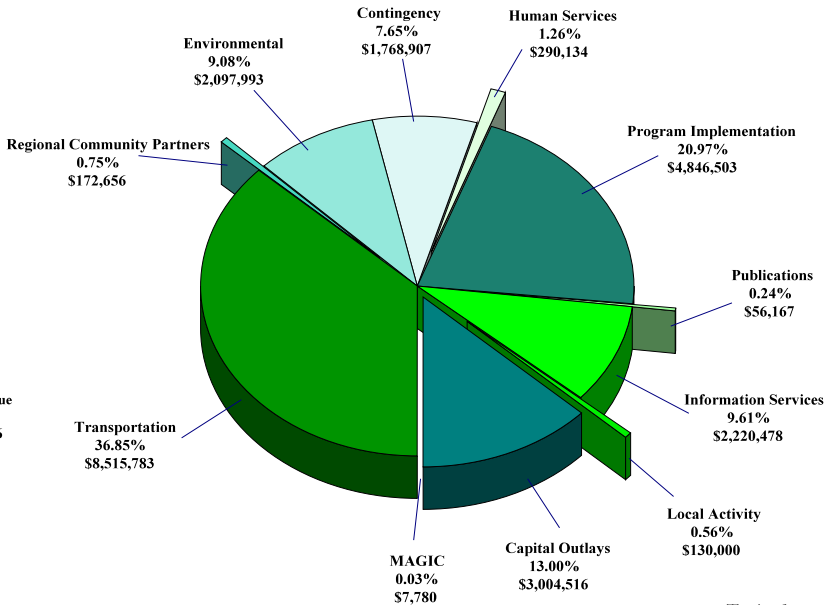
FY 2011 Budget Compared to FY 2012 Budget

Revenues By Source	2010 Actual	2011 Revised Budget	2012 Proposed Budget	$ Change FY 11-FY 12	% Change FY 11-FY 12
Federal	$15,792,452	$27,657,573	$20,907,540	($6,750,033)	-24.41%
State	2,949,212	3,583,404	4,099,159	515,755	14.39%
Local	671,546	326,844	303,276	(23,568)	-7.21%
Other	386,843	417,286	482,882	65,596	15.72%
Less: Restricted Reserves		(6,437,449)	(2,681,950)	(3,755,499)	-58.34%
Total Estimated Revenues Without Carryforward	**19,800,053**	**25,547,658**	**23,110,907**	**(2,436,751)**	**-9.54%**
Total Estimated Revenue Carryforward		**10,010,336**	**8,675,280**	**(1,335,056)**	**-13.34%**
Total Estimated Revenue		**35,557,994**	**31,786,187**	**(3,771,807)**	**-10.61%**
Expenditures By Division/Function					
Publications	57,597	50,054	56,157	6,103	12.19%
Environmental	2,281,878	2,401,695	2,097,993	(303,702)	-12.65%
Human Services	716,130	408,362	290,134	(118,228)	-28.95%
Regional Community Partners (RCP)	53,151	234,568	172,656	(61,912)	-26.39%
Program Implementation	3,917,773	5,066,506	4,846,503	(220,003)	-4.34%
Transportation	9,808,003	10,309,485	8,515,783	(1,793,702)	-17.40%
MAGIC	32,713	47,765	7,780	(39,985)	-83.71%
Information Services	2,755,147	2,303,129	2,220,478	(82,651)	-3.59%
Local Activity	178,921	65,000	130,000	65,000	100.00%
Capital Expenditures	79,149	2,864,400	3,004,516	140,116	4.89%
Contingency	-	1,796,694	1,768,907	(27,787)	-1.55%
Total Estimated Expenditures Without Carryforward	**19,880,462**	**25,547,658**	**23,110,907**	**(2,436,751)**	**-9.54%**
Total Estimated Expenditures With Carryforward		**10,010,336**	**8,675,280**	**(1,335,056)**	**-13.34%**
Total Estimated Expenditures		**$35,557,994**	**$31,786,187**	**($3,771,807)**	**-10.61%**

Estimated Revenues FY 2012



Estimated Expenditures FY 2012



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