MINUTES OF THE
MARICOPA ASSOCIATION OF GOVERNMENTS
SOLID WASTE ADVISORY COMMITTEE MEETING

Thursday, June 20, 2013
MAG Office Building
Phoenix, Arizona

MEMBERS ATTENDING

Christine Smith, Phoenix, Chair
Louis Andersen, Gilbert, Vice Chair
Cindy Blackmore, Avondale
Scott Lowe, Buckeye
* Sheree Sepulveda, Chandler
* Robert Senita, El Mirage
Ernie Ruiz for Christina Betz, Glendale
Willy Elizondo, Goodyear
* Chuck Ransom, Litchfield Park
Tara Acuna for Patrick Murphy, Mesa
* Jerry Cooper, Paradise Valley
# Rhonda Humbles, Peoria
Ramona Simpson, Queen Creek
Richard Allen, Salt River Pima-Maricopa Indian Community
Manuel Castillo, Scottsdale
James Swanson, Surprise
Charles Bladine, Tempe
* Helen Heiden, Arizona Chamber of Commerce and Industry
J.B. Shaw for Veronica Garcia, Arizona Department of Environmental Quality
* Jill Bernstein, Keep Arizona Beautiful
Brian Kehoe, Maricopa County
Wendy Crites for Dan Casiraro, Salt River Project
Chris Coyle, Valley Forward

*Those members neither present nor represented by proxy.
#Attended by telephone conference call.

OTHERS PRESENT

Julie Hoffman, Maricopa Association of Governments
Kara Johnson, Maricopa Association of Governments
Lindy Bauer, Maricopa Association of Governments
Matt Poppen, Maricopa Association of Governments
Kelly Taft, Maricopa Association of Governments
Cruz Robles Jr., City of Scottsdale
Bob Gedert, City of Austin
Larry Williams, United Fibers
Maher Hazine, City of Peoria
Willie Black, Waste Management
Robin Thomas, Arizona Department of Environmental Quality
Frank Shinzel, Maricopa County Air Quality Department
Richard Sumner, Maricopa County Air Quality Department
Deborrah Martinkovic, Maricopa County Air Quality Department

1. Call to Order

A meeting of the MAG Solid Waste Advisory Committee (SWAC) was conducted on Thursday, June 20, 2013. Christine Smith, City of Phoenix, Chair, called the meeting to order at approximately 10:05 a.m. Rhonda Humbles, City of Peoria, attended the meeting via telephone conference call. Chair Smith stated that audience members are invited to use the microphone to ask questions after the presentations.

2. Call to the Audience

Chair Smith provided an opportunity for members of the public to address the Committee on items not scheduled on the agenda that fall under the jurisdiction of MAG or items on the agenda for discussion, but not for action. She noted that according to the MAG public comment process, members of the audience who wish to speak are requested to fill out comment cards, which are available on the tables adjacent to the doorways inside the meeting room. Citizens are asked not to exceed a three minute time period for their comments. Chair Smith noted that no public comment cards had been received.

3. Approval of the March 21, 2013 Meeting Minutes

The Committee reviewed the minutes from the March 21, 2013 meeting. Ramona Simpson, Town of Queen Creek, moved, and Willy Elizondo, City of Goodyear, seconded and the motion to approve the March 21, 2013 meeting minutes carried unanimously.

4. City of Austin, Texas, Zero Waste Goal and Resource Recovery Master Plan

Bob Gedert, City of Austin, presented on the City of Austin's efforts to achieve zero waste. Mr. Gedert provided a brief overview of his background and experiences and stated that he would be discussing advanced recycling activities, the growth of recycling within solid waste management, and materials management. Mr. Gedert indicated that the main purpose for his presentation is to be a resource and to promote the concept of integrated and expanded diversion activities through zero waste.

Mr. Gedert reviewed the history of solid waste. He indicated that in Ancient Greece solid waste was the responsibility of individuals, not governmental agencies, and that waste composition was simplistic, consisting of ash, wood, pottery, broken tools, and spoiled food. There was no organized collection, and the disposal method was burial in the soil. He noted that the material was primarily compostable. Mr. Gedert noted that the concept of secondary life for materials started in this time since nearly everything was repaired or reused. During the Middle Ages, disposal methods for solid waste consisted of unmanaged urban pits which created rodent and sanitation problems. Mr. Gedert mentioned that the pits were sometimes burned. In terms of diversion, salvagers recovered and recycled many of the items including: metal, leather, textiles, and food scrap for animal feed. He commented that scavenger collection exploded even more during the Industrial Revolution because metal, glass, brick, charcoal and other building materials entered the waste stream. Scavengers now coordinated with city services, such as street sweeping, and would go out before street crews to clear the areas of debris and reusable items.

Mr. Gedert discussed solid waste in the 20th century. He stated that solid waste management became a term used by municipal governments in the early 20th century. Organized municipal sanitation workers were employed; disposal now consisted of managed dumps; and street curbside collection

was utilized for sanitation purposes. Mr. Gedert commented that during this time there was approximately a 75-80 percent diversion rate of materials such as glass, metal, paper, wood, and brick, through street and dump scavenging. He commented that municipalities have regressed to a much lower diversion rate today. However, Mr. Gedert noted that the waste stream has changed dramatically over the last century; a large percentage of the waste in the early 20th century was inorganic. In 2000, the largest waste stream was product waste, which includes toxic and hazardous material product waste.

Mr. Gedert stated that the term integrated waste management was introduced in the late 20th century. Most communities in the United States today are engaged in integrated waste management in which curbside services are provided by either public or private entities. The waste composition includes discarded products, hazardous waste, food, electronics, ceramics and composites. Mr. Gedert reported that disposal methods consist of sanitary landfills, waste-to-energy, incineration, and ocean dumping. He noted the prohibitions in ocean dumping today; however, between the 1960's and 1990's 25 percent of waste generated in the United States was ocean dumped. He added that diversion activities in the late 20th Century were concentrated on curbside recycling with some communities addressing yard trimmings and organic collection.

Mr. Gedert provided an overview of what is now called materials management. He commented that materials management came about in the early 21st century and looks at the materials at the curb not as waste, but as a material form that is a feedstock to industry. Mr. Gedert discussed that this is a progression towards zero waste, also called sustainable material management by the Environmental Protection Agency (EPA). He indicated that the concept of materials management is recovering materials, not collecting trash to be disposed of in a landfill. Materials management collection consists of proactive street curbside collection; disposal methods of sanitary landfills (if not recoverable), waste-to-energy, and waste conversion technologies; and diversion practices of reduction and reuse. Mr. Gedert reviewed a chart provided by EPA that includes options for materials management from most favored to least favored: prevention, minimization, reuse, recycling, energy recovery, and disposal. He indicated that: prevention, minimization, reuse, and recycling are diversion options while energy recovery and disposal are the disposal options. Mr. Gedert noted that this is how they count diversion in the City of Austin. He stated that energy recovery is definitely preferred over landfill disposal; however, it is still a disposal technology.

Mr. Gedert presented an EPA pie chart displaying total municipal solid waste generated by material. He summarized that zero waste is achievable since half of the pie chart is classified as organics, which can be composted, and the other half is recyclables that can be recovered as a secondary material as feedstock for industries and product manufacturing. Mr. Gedert stated that in concept approximately 90-95 percent of the table is recoverable for secondary use; the other 5-10 percent is hazardous waste, toxic materials, and composites which cannot be recycled or recovered. He indicated that zero waste is the concept of material recovery for secondary uses either through composting or recycling. Mr. Gedert noted that the challenges of zero waste is collection, finding a market for secondary life, and economics. He presented an EPA table on the progress in municipal solid waste diversion rates and total tons recycled.

Mr. Gedert discussed landfill management. He noted the challenges including closures, expenses, post closure care, and containment failure. Mr. Gedert stated that according to EPA approximately 95 percent of United States landfills are classified as “dry tomb” which entails keeping moisture out, entombing the waste from the elements. However, this type of landfill management usually leads to containment failure either through the landfill cap or through underground aquifers. Mr. Gedert

mentioned that almost 90 percent of sited landfills are above an aquifer or by a source of water. He noted that this is an element working against landfill management.

Mr. Gedert discussed the efforts in the City of Austin. He stated that the past waste management strategy was sanitation waste collection, the recent strategy was integrated waste management, and the new direction is materials management and a goal of zero waste. Mr. Gedert indicated that the City has a community value to be green and that the City is usually listed as one of the top ten greenest cities in America. Austin pursues the green mentality in many different ways: transportation, sustainability, air quality, water quality, and diversion activities. Mr. Gedert indicated that during the 2005 World Environment Day in San Francisco, the United Nations discussed the Urban Environmental Accords and 100 of the largest cities in America were asked to adopt these Accords. A month after Austin adopted the Urban Environmental Accords, the City Council endorsed the Accords unanimously. A commitment to zero waste by 2040 was included in the Accords that were adopted by the 100 cities. In 2006 and 2007, the Austin City Council researched zero waste and had guest speakers in to speak on the subject. In 2008, Austin contracted with a zero waste consultant, Gary Liss and Rick Anthony, who developed a conceptual framework for zero waste. The Austin City Council adopted the Zero Waste Strategic Plan in 2009. Mr. Gedert noted that he was hired to implement the Zero Waste Plan. He stated that throughout 2010 and 2011 the City coordinated over 100 community meetings to discuss the implementation of the Zero Waste Strategic Plan and gain feedback. He explained that after 20 months of community discussion, the City Council adopted the Zero Waste Master Plan, which is a 300 page document that was mainly written internally and driven by community discussion. He recommended internalizing this process versus using consultants and obtaining feedback from the community and staff.

Mr. Gedert described the transition at the City of Austin. He indicated that the City Solid Waste Services Department was the previous department name. Since the City adopted the new mission of recovering resources, the new name for the department is Austin Resource Recovery (ARR). Mr. Gedert stated that the City had a naming contest that was facilitated on the web in which a lot of creative names were recommended. He noted that the final name of Austin Resource Recovery was the top choice of the 400 employees in the department.

Mr. Gedert discussed the ARR vision and mission. He stated that the vision is "to be the national zero waste leader in the transformation from traditional integrated waste collection to sustainable resource recovery." The mission is "to achieve zero waste by providing excellent customer services that promote waste reduction, increase resource recovery, and support the City's sustainability efforts." Mr. Gedert commented that excellent customer service is essential when working to change behavior. He stated that diversion is changing the behavior of people, in how they handle the material.

Mr. Gedert provided the Zero Waste International Alliance definition of zero waste: "zero waste is a goal that is ethical, economical, efficient and visionary, to guide people in changing their lifestyles and practices to emulate sustainable natural cycles, where all discarded materials are designed to become resources for others to use. Zero waste means designing and managing products and processes to systematically avoid and eliminate the volume and toxicity of waste and materials, conserve and recover all resources, and not burn or bury them. Implementing zero waste will eliminate all discharges to land, water or air that are a threat to planetary, human, animal or plant health." Mr. Gedert noted that the City works and communicates with product manufacturers in Austin, as well as, national leaders and through citizen campaigns on better product design for recyclability.

Mr. Gedert presented the zero waste diversion goals in the Austin Resource Recovery Master Plan. The 2010 base diversion rate was 35 percent and the City now has a current diversion rate of 42 percent. Mr. Gedert noted that the future goals are as follows: 50 percent diversion by 2015; 75 percent diversion by 2020; 85 percent diversion by 2025; 90 percent diversion by 2030; and 95 percent or above diversion rate by 2040. Mr. Gedert commented that citizens have asked why 95 percent is not anticipated until far in the future. He explained that this is a realistic goal, on a timetable that the City feels it can honor. The current challenge to citizens is getting to 50 percent diversion by 2015. Mr. Gedert stated that the annual budget and resource dedication are managed by these primary diversion rate goals.

Mr. Gedert reviewed the four keystone initiatives: materials management - the 4R's (rethink, reuse, reduce, recycle); expanded recycling opportunities; organics collection and composting; and economic development growth. Mr. Gedert discussed creating jobs in the Austin area by marketing the materials locally.

Mr. Gedert discussed the Austin Master Plan. He indicated that there are 25 topical chapters in the Plan and every chapter contains a different materials management strategy. Mr. Gedert noted that the plan contains partnerships to emphasize that this is a community-wide effort. The partnerships include: public-private partnerships; university partnerships; city department partnerships; and pilots and demonstration projects that create partnerships with the non-profit community. Mr. Gedert reported that 25 percent of the waste stream generated in the City is serviced by City employees and 75 percent is collected by private companies. He commented that the City has partnerships with the different private companies that service the region, including the national companies. Mr. Gedert mentioned that the City is working to build a positive working relationship with the 14 hauling companies that service Austin. The City services single family households and smaller apartment complexes. Private haulers collect the larger apartment complexes, as well as, commercial, industrial, and institutional waste. Mr. Gedert noted that zero waste initiatives can also work in communities that contract for municipal solid waste services with private companies as long as productive working relationships are present.

Mr. Gedert presented the materials management pie chart for the composition of Austin's waste stream. He noted that Austin is different than the national stream, and added that the City plans to update this chart later this year. Mr. Gedert stated that composition information is essential because it is the focus for the materials management program.

Mr. Gedert reviewed the Austin Resource Recovery Master Plan. He indicated that the Zero Waste Master Plan became the department's master plan that guides the budget process for existing programs and the deployment of new programs. Mr. Gedert noted that the master plan includes the following topics: zero waste synergy with sustainability efforts; waste reduction; reuse and repair businesses; single-stream recycling collection; single-stream organics collection; household hazardous waste; closed landfill management; recycling and economic development; partnerships; policies and ordinances; and incentives and rewards.

Mr. Gedert commented that with regard to sustainability efforts, the City is doing City Green Purchasing. In addition, the City has used new software and spoke with drivers to realize routing efficiencies that reduced travel miles by 10 percent, saving $1 million in diesel fuel per a year. Mr. Gedert discussed air quality grants for conversion to CNG vehicles that will also result in significant cost savings for the City. He stated that the City Council recently approved an additional 19 CNG vehicles.

Mr. Gedert stated that in terms of waste reduction, the City has contracted with Catalog Choice, a non-profit, on reduction of junk mail. Additionally, the City is working on a Waste Reduction Assistance Program for local commercial businesses.

Mr. Gedert stated that along with creating reuse and repair businesses, the City is also working towards a teacher resource center. In addition, the City is looking to create five reuse drop-off sites for reusable items like desks and chairs. Mr. Gedert mentioned a mattress recycling pilot program with Goodwill where the materials inside the mattresses can be reused.

Mr. Gedert discussed single-stream recycling collection. He stated that the City converted to single-stream recycling approximately four years ago where all recycling goes into a blue, recycling specified cart. Recycling collection occurs bi-weekly, however a transition to weekly will occur in 2016. Mr. Gedert mentioned that the City signed two long-term contracts with recycling processors, one contract for the south and another for the north. He indicated that transitioning to a north/south split of the City saved $1.2 million in fuel costs last year.

Mr. Gedert indicated that the City currently collects paper-bagged organic materials, but is working towards single-stream organics collection. The City is in a three year transition to a green cart that will collect organic material and food waste. The collection of food scraps will enable diversion of the 9-12 percent of the municipal solid waste stream that is food scraps.

Mr. Gedert commented that with regard to household hazardous waste, the City currently has a drop-off location in the south and is looking to build a northern facility in the future. He added that door-to-door collection is provided for the elderly and for citizens who have no way to transport the hazardous waste. The City offers a battery take-back program and is also working on a pharmaceutical take-back program.

Mr. Gedert discussed closed landfill management. He indicated that the City is currently performing post-closure care of the City Landfill. Austin contracts with a private company in the south for landfilling services of materials that cannot be composted or recycled. Mr. Gedert stated that the City is rebuilding the closed landfill and expanding the gas capture system into a gas-to-energy system. Additionally, the site will host a 150 acre solar farm and a 100 acre eco-industrial park. Mr. Gedert commented that the eco-industrial park will bring economic development and jobs to Austin in the re-manufacturing of recyclable material into products. He mentioned a research and development grant to support zero waste.

Mr. Gedert indicated that with regard to recycling economic development, Austin supports by-product synergies. By-product synergies is a concept where local industries generating a waste stream that is a feedstock to another industry can be located near one another. For example, locate a wood furniture manufacturer that produces wood scrap next to a pencil manufacturer that can use the wood scrap to create pencils and thus efficiencies in industry. Mr. Gedert mentioned a Business Waste Reduction Assistance Program. He discussed tying the Brownfield Redevelopment Program into the Economic Development Plan where the City cleans up a site, certifies that it is not a hazardous site, and re-markets the site for a recycling business. Austin has hired a Recycling Economic Development Liaison to aid in these endeavors.

Mr. Gedert reviewed City of Austin policies and ordinances. He indicated that the City Council is proactive in developing policies that support zero waste. For example, the Universal Recycling and Composting Ordinance phase one was adopted two years ago that includes multifamily complexes and offices. Phase two was adopted this year which includes retail, restaurants, and industrial. This

ordinance will require every building in the City to provide recycling services by 2016. Mr. Gedert added that this ordinance will create a boon for the private haulers and recyclers because it will create a guaranteed, stable recycling market. He commented on a Green Event Recycling Ordinance that is being adopted this summer that will require any public or City event to create a Green Event Game Plan, as well as, provide for the recycling and composting of waste streams. Mr. Gedert mentioned that a construction, demolition, and deconstruction recycling ordinance is being researched by a workgroup of public and private entities that is aiming to present a construction and demolition ordinance before the City Council next spring. He stated that the City Council takes an interest in the challenge of single use disposable products. He noted that effective March 1, 2013, the City banned single use retail bags in retail stores. Mr. Gedert indicated that the transition seemed to go smoothly and many positive public comments have been received on the ban. The ban also significantly reduces City litter, a 50 percent reduction in litter so far from the ban. Mr. Gedert discussed working with the State Legislature on a Bottle Bill that would encourage recycling of bottles and containers.

Mr. Gedert discussed incentives and rewards. The City facilitates a Composting and Event Rebate Program in which a $75 rebate is awarded to residents who participate in a composting workshop and then demonstrate that they are composting. Mr. Gedert noted that the City also utilizes business assistance and recognition. Lastly, the City's pay-as-you-throw rate structure incentivizes diversion.

Mr. Gedert presented the City of Austin's organics pilot program. Organics collection in Austin is moving from bagged collection to a green cart collection. Mr. Gedert explained that 7,900 homes are currently serviced with green cart collection with an additional 8,000 homes to be added next year. In the fourth year (2016) all 170,000 Austin homes will be converted to a third, green cart for organics and food waste collection. Mr. Gedert noted that the City is broken down into five geographic areas that are being studied with regard to the organics pilot. Kitchen food scrap containers are supplied to residents with the green organics cart. The City provides literature, instructions, do's and don'ts, a call 3-1-1 help line, and website direction with the new green organics cart. Yard trimmings, food scraps, and compostable paper are the items allowed in the green cart.

Mr. Gedert reviewed residential diversion. He indicated that the City assumes an average of two percent population growth per year which translates to additional waste generation. Based on citizen input, the City is working towards a 90 percent diversion by 2030. Mr. Gedert presented a table depicting estimated data for total residential diversion, residential waste disposal, residential waste generation, and residential diversion rate leading to the year 2030. He commented that residential waste disposal in 2010 was 150,000 tons and in 2030 the planned waste disposal will be down to 37,000 tons which will impact landfilling operations. Mr. Gedert stated that this chart shows a progressive plan that creates economic development opportunities where all of the waste diverted can stay in the local economy through local recovery and product manufacturing infrastructure.

Mr. Gedert discussed commercial diversion. He stated that the City assumes an average three percent business growth per year. Mr. Gedert indicated that commercial waste disposal was 700,000 tons in 2010 and in 2030 the waste disposal is proposed to be 180,000 tons. He commented that this shows a progression of waste diversion that leads to significant economic development. Mr. Gedert stated that the goal of 1.6 million tons of material diverted creates economic development in that local businesses build the capacity to utilize diverted material, especially when the City Council, policies, and programs all support that diversion goal.

Mr. Gedert reviewed the pay-as-you-throw rate structure for residents. He stated that the unit pricing is calculated per gallon of trash service. The cart sizes available are 24, 32, 64, and 96 gallon; residents will pay more if they waste more, pay less if they waste less. Mr. Gedert mentioned that the City Council supports this stratified rate structure.

Mr. Gedert presented an estimated new program costs table that was displayed in public meetings to residents. The total additional expenses for Fiscal Year (FY) 2013 is $4.5 million and the FY 2013 annual disposal savings for diverting materials from landfills is $4.8 million. Mr. Gedert explained that in later fiscal years, diverting materials becomes more costly due to economics and a decrease in new savings from material landfilled. In examining the rate impact to residents, there is no rate increase for FY 2013, the largest estimated rate increase is $1.06 in FY2015, however in FY 2020 the increase is $0.08. Mr. Gedert clarified that the table is an estimation, however he indicated that the City has followed this track to date. He stated that Austin has been open in discussion with residents about the cost of new programs, as well as, the cost-benefits.

Mr. Gedert discussed the 2013 residential rates for trash, recycling, and organics collection. He indicated that 65 percent of residents choose the 64 gallon trash cart size. The total monthly fee for a 64 gallon trash cart, 96 gallon recycling cart, and 96 gallon organics cart is $19.75. The price breakdown is as follows: $0.16 multiplied by 64 for monthly trash rate of $10.25; monthly recycling rate of $4.75; and the monthly organics rate of $4.75. Mr. Gedert pointed out that monthly recycling and organics service cost less than trash service. He stated that there is an large initial investment with recycling programs, however monthly services for collecting recycling and organics cost less than trash removal. Mr. Gedert noted that he hopes to be able to provide a rebate on utility bills to residents in the future when the recycling market is strong.

Mr. Gedert reported lessons learned on residential recycling collection. Lessons learned include: varied set out rates; routing challenges; contamination challenges; pounds per household varied; customer education for nine zones; truck styles; and container sizing. Mr. Gedert stated the City has experienced a varied set out rate ranging between 50 to 85 percent. The City is analyzing their nine zones as compared with census data to determine which communities have a higher rate for recycling. Mr. Gedert indicated that the City will tailor its outreach and education by area using this analysis. He added that with regard to contamination, the City would like to reduce the current 14 percent contamination rate by increasing education outreach. With regard to truck styles, Austin experimented with rear loaders, automated side loaders, and semi-automated vehicles. Mr. Gedert noted that automated vehicles work best for recycling and that the City is currently averaging 25 seconds per household. He discussed container sizing in that residents must have a recycling cart equal to or larger than their trash container.

Mr. Gedert presented lessons learned on residential organics collection. He stated the City has experienced a varied set out rate ranging between 10 to 85 percent. He noted that with regard to contamination, the City would like to reduce the current five percent organic contamination rate to less than one percent using do and don't tips for residents. With regard to customer education, Mr. Gedert commented that the education is in the neighborhoods to address the issues and needs of individual areas. Semi-automated truck styles work best for organics collection.

Mr. Gedert reviewed the City's marketing programs. He explained that the City's nine residential zones are educated with nine different messages. Mr. Gedert indicated that ARR has two videos that are part of the Dare to Go Zero video series that followed four families journey to meet the goal of 90 percent diversion. Austin also updates an annual calendar with different events and information for residents. Mr. Gedert mentioned that a public meeting is held monthly where the Zero Waste

Advisory Commission, a citizen commission appointed by City Council, discuss zero waste. He added that next month the budget will be presented to the Zero Waste Advisory Commission before being submitted to City Council. Additional marketing programs include: Recycle Right Campaign; container labels; business assistance; private hauler assistance; and consumer education.

Mr. Gedert discussed that the ARR Household Hazardous Waste (HHW) and Electronics Collection efforts include: HHW collection drive-through; elderly door stop collection; paint recycling known as Austin ReBlend; battery retail collection at approximately 50 City locations; electronic collection called Project Reconnect; support for advanced recycling fees; future north HHW collection facility; looking for retail collection of compact fluorescent light bulbs and pharmaceuticals; and extended producer responsibility (EPR). With regard to Project Reconnect, this is a national project sponsored by Dell and Goodwill that was piloted in Austin in which Dell collects used computers (from any manufacturer) through Goodwill locations. Mr. Gedert mentioned that ARR supports the potential for a nation-wide or state-wide advanced recycling fee system in which a potential fee is placed on the purchase of large electronics that would then fund resource recovery for electronics. With regard to EPR, Mr. Gedert defined EPR as businesses that create or distribute a waste flow that cannot be handled through curbside recycling and having a corporate responsibility to recycle the product. He provided the example of lighting manufacturers, pharmaceutical companies, and battery manufacturers.

Mr. Gedert reviewed the climate conditions of Austin and the impact on ARR. He stated that, according to forecasts, Austin will be having hotter, dryer summers; warmer, dryer winters; continuation of long-term drought; and storms will become more violent. Mr. Gedert commented that Austin is participating in heavy water conservation because this is the fourth year of a drought that has brought water levels in lakes to 40 percent of normal levels. In reaction to these climate impacts ARR has also started converting to CNG and hybrids to avoid diesel fuel line vaporization due to heat. Additionally, ARR has varied start times to reduce heat stroke in workers. Mr. Gedert added that workers are also encouraged to take more water breaks. Finally, Austin is developing a Storm Debris Management System to address the predicted violent storms.

Mr. Gedert presented ARR Service Standards. He indicated that ARR receives strong support from the City Council. He commented that this strong support is from speaking with the community residents first. Mr. Gedert discussed the ARR service standards: transparent and accountable accounting - all expenses are listed on the website; reflect community values through requirements for a living wage (currently $11 per hour) and health insurance for all employees; monthly citizen commission meetings; open budgetary discussion; change-oriented operations; define price points with new programing consciously; consumer choice for cart services and pay-as-you-throw rates; and customer service must be highest priority.

Mr. Gedert discussed customer service and customer satisfaction. He commented that the customer satisfaction ratings are as follows: 60 percent customer satisfaction is classified as “standard”; 70 percent customer satisfaction is defined as “acceptable”; 80 percent customer satisfaction is considered “high quality”; and 90 percent or above customer satisfaction is determined to be the “gold standard”. According to resident survey, ARR received an 85 percent customer satisfaction rating last year and are working towards receiving a “gold standard” customer service rating. ARR also strives to expand metrics to reflect community values. In addition, ARR focuses on customer satisfaction through: micro-routing, color coded trucks for customer security, and staying in touch with citizens through neighborhood meetings.

Chair Smith asked if there is an enforcement program for contamination. Mr. Gedert responded that this has been discussed at community meetings and that enforcement is currently volunteer based. He indicated that drivers in organics collection are lifting lids to check for contamination. Mr. Gedert mentioned a larger enforcement program scheduled for 2016 which will give residents time to learn and adjust to the changes in service. He stated that of the 14 percent recycling contamination, eight percent is rendered non-recoverable at the Materials Recovery Facility (MRF). ARR is working to reduce the six percent recycling contamination that is customer mistake. Mr. Gedert mentioned the organics contamination rate of 5 percent could be reduced to the acceptable standard of one percent, if plastic bags were not used by residents to bag material. This is a common problem.

Chair Smith inquired if Mr. Gedert foresees any technology changes or needs in the future regarding the solid waste industry. Mr. Gedert replied that with today's technology 90 percent or more of materials are recyclable or compostable. The challenge is collection of the materials and then how the materials are marketed. He indicated that he does not foresee a big change in the product or waste stream, but changes in how materials are recovered, recycling collection vehicles, optical sorters at MRF's, and product manufacturing. Mr. Gedert mentioned that he sees technological leaps in that industries will have sustainability plans that encourage recycled content and promote zero waste. Chair Smith thanked Mr. Gedert for his presentation.

5. Solid Waste Management Facilities and Services and Air Quality Considerations

Richard Sumner, Maricopa County Air Quality Department, presented on the convergence of solid waste and air quality. Mr. Sumner stated there is a substantial connection between solid waste and air quality. He indicated that the challenge for environmental entities is solving an environmental problem in one area without causing a problem in another area.

Mr. Sumner provided historical and background information on air quality and solid waste in Maricopa County. He indicated that Maricopa County is a nonattainment area for PM-10 which means that the region is not meeting the National Ambient Air Quality Standards (NAAQS) for course particulate matter. Due to the nonattainment status, a Five Percent Plan for PM-10 has been submitted to the Environmental Protection Agency that describes how the area is making progress toward meeting the NAAQS for PM-10. Mr. Sumner added that the County is currently meeting the NAAQS for fine particulate matter, PM-2.5. However, fireplace burning during the winter months often causes a significant increase in PM-2.5 emissions. He noted that emissions become trapped by inversions. Mr. Sumner stated that Maricopa County will be disseminating information throughout the upcoming months to educate residents on the impact of fireplace burning on air quality. He discussed that not only does MCAQD want to protect the vulnerable population, including citizens with respiratory issues and children, but to also avoid the punitive and disruptive measures to industry that come with nonattainment status of a NAAQS.

Mr. Sumner discussed ozone. He stated that Maricopa County is a nonattainment area for the eight-hour ozone standard of 0.075 parts per million (ppm). Mr. Sumner mentioned that so far this year there have been exceedances of the eight-hour ozone standard on four different days, which is an improvement from last year. He noted that EPA is looking to lower the standard anywhere between 0.060-0.070 ppm to protect human health.

Mr. Sumner reviewed Maricopa County ordinances that impact solid waste. Ordinance P-21 addresses idling of diesel vehicles. Mr. Sumner commented that this ordinance applies to diesel trash trucks. The ordinance restricts diesel vehicles from idling more than five minutes. Mr. Sumner

stated that the reason for the ordinance is that idling impacts both particulate emissions and also nitrogen oxide (NOx) emissions. He noted that conversions of trash and recycling trucks to CNG vehicles is very helpful for air quality. Mr. Sumner indicated there are some grants and other opportunities available to lower emissions through conversion to CNG vehicles or other technologies. He also mentioned low sulfur fuels and particulate emission filter systems. Mr. Sumner noted that it takes a series of incremental, positive steps, implemented in various ways by multiple groups to improve air quality.

Ordinance P-27 relates to vehicle parking and use on unstabilized vacant lots. Mr. Sumner indicated that this has been an area for emphasis of the Maricopa County Air Quality Department. Various governmental agencies operate large fleets of vehicles where operators need to be cognizant of the restrictions associated with parking in unpaved areas to avoid PM-10 emissions. Mr. Sumner added that ordinance P-27 is one of the measures in place to control PM-10 emissions.

Mr. Sumner reported dust control options. Additional opportunities to exercise dust control measures, beyond the ordinances, include on-going maintenance projects regulated through block permits, such as street repairs and alley maintenance. Mr. Sumner indicated that block permits have been a challenge to administer for both the end user and issuer. The difficulty lies in making timely notifications, thus end users may need to be more vigilant and self-policing since MCAQD inspectors may not be on site as frequently as they would with a traditional dust control permit. Mr. Sumner stated that waste transfer stations are another potential site for dust due to the trucks entering and exiting the facilities, as well as, the dumping of material.

Mr. Sumner discussed a recent regulatory change. He stated that a year ago MCAQD developed a general permit for stationary dust-generating sources. He indicated that the department anticipates this permit will be used for facilities such as waste transfer stations, mulching operations, closed landfills, landscape supply yards or any operation that only has requirements under Rule 310, the primary dust control rule. The general permit is less costly than the Title V permits that it may replace and is simpler to administer for both the source and the MCAQD. Mr. Sumner noted that in certain situations the block permit can be replaced by the general permit, but these situations would be evaluated on a case-by-case basis. He stated that the MCAQD would be happy to answer any questions or provide assistance in this process.

Mr. Sumner reviewed mulching and composting facilities. He commented on the benefits of diverting green waste from landfills. Additionally, mulch can be beneficial for landscape enhancement and soil conditioning. Mr. Sumner added that there can also be challenges with mulching and composting facilities; he mentioned a recent four day fire at such a facility. The fire impacted air quality; residents were asked to evacuate, and school classes were relocated. As a result of the fire, notices of violation were issued.

Mr. Sumner discussed areas of non-compliance. He stated that in recent months, one of the air quality monitors was periodically displaying spikes in both PM-10 and PM-2.5. Consequently, MCAQD increased surveillance and analysis near the monitor which resulted in the discovery of a white cloud wafting toward the monitor in the pre-dawn hours. The investigation revealed that the likely primary source was a nearby mulching facility. Mr. Sumner indicated that violations were issued to the source. He commented that these stories are being presented to reiterate that there is a significant connection between solid waste management and air quality. Mr. Sumner stated that there are also consequences for non-compliance. He noted that the MCAQD emphasizes compliance assurance and works to assist and encourage facility compliance with air quality rules.

Mr. Sumner reported potential future regulation that may impact solid waste facilities, as well as, air quality. He noted that Maricopa County is a nonattainment area for the eight-hour ozone standard. Mr. Sumner stated that ozone is formed when volatile organic compounds (VOC) and NOx react in the presence of heat and sunlight. He commented that MCAQD is working to reach attainment of the current ozone standard and to meet any future lower standards. Mulching facilities are a source that is being evaluated. Mulching facilities provide a host of opportunity and benefit with regard to diverting waste, however early research and data from California and other states indicate that significant amounts of VOC emissions are emitted from mulching facilities. Mr. Sumner discussed that preliminary data show that the largest mulching facilities in this region may be the largest VOC facilities in the County. He commented that in order to meet air quality requirements, mulching facilities are a major, new source that will be investigated. Mr. Sumner added that data will be gathered in the upcoming months and the County will work with the sources to develop best management practices and feasible regulations. He indicated that in the past primarily particulate matter was inspected with regard to these facilities, however VOC will also now be inspected. He clarified that he is not speaking in opposition of these facilities, but would like to have entities in the area work together to maximize environmental benefits and minimize negative impacts.

Mr. Sumner discussed recent projects in the region. He commented on a waste-to-energy facility in Glendale, developed by Vieste. Mr. Sumner mentioned that from an air quality perspective, this facility will be better than a landfill, which utilizes uncontrolled flaring, since there are extensive controls on a waste-to-energy facility that will remove particulate matter, NOx, VOC, and sulfur dioxide. Mr. Sumner stated that Waste Management also has a project at it's Northwest Regional Landfill that utilizes engines to generate electricity from landfill gas. He added that rather than simply flaring landfill gases, this project cultivates a beneficial use for the gases captured.

Mr. Sumner indicated the purpose of his presentation was to create a greater appreciation for how solid waste management and air quality are intertwined. He indicated that both air quality and solid waste professionals have the opportunity to assist each other in developing and implementing best solutions to meet the respective objectives.

Brian Kehoe, Maricopa County, inquired about VOCs from mulching facilities. Mr. Sumner responded that VOCs naturally occur with the breakdown of the materials. Mr. Kehoe asked if a specific or general permit for mulching facilities would be required. Mr. Sumner replied that currently the general permit is applicable, however in the future a specific permit may be developed to address VOCs and any particular best management practices to minimize VOCs at these facilities. Mr. Sumner indicated that California, Colorado, and Massachusetts are examples of areas that have adopted mulching facility regulations. He noted that MCAQD will be researching these regulations. Mr. Sumner thanked the Committee.

6. Update on the Regional Recycling Video

Ramona Simpson, Town of Queen Creek, provided an update on the regional recycling video. She displayed a variety of holiday items and asked the Committee which items are recyclable. Some items such as aluminum cans and cardboard boxes are recyclable. However, Ms. Simpson pointed out items that are not recyclable, such as: tissue paper, used paper plates, wrapping paper, and bows. She commented that holiday items can be confusing to residents on what can or cannot be recycled. Mr. Simpson reported that these were all items discussed at the recycling video group. Contamination rates are higher during the holiday months (November through January) which is the inspiration for the regional recycling video. Ms. Simpson indicated that this video will be in

cooperation with the efforts of the Valleywide Recycling Partnership (VRP) who have also been working towards educational messaging on similar issues. She commented that the regional recycling video would highlight the positives of increased, correct recycling during the holidays and include direction on what may not be recyclable. Ms. Simpson commented that the messages have not been fully developed, however potentially four, thirty second to one minute recycling videos will be created to aid cities and towns in the region with a holiday recycling message. She stated that the recycling video group will continue to develop the messages in hopes of having the videos available for America Recycles Day.

Ernie Ruiz, City of Glendale, inquired if input from Material Recovery Facilities (MRF) has been received with regard to the regional recycling video because some facilities accept non-metallic wrapping paper and tissue paper. Ms. Simpson replied that the videos will likely present a higher representation of holiday recycling, not specifying recyclables for any particular area. She indicated that this is a challenge because some communities accept certain products and others do not. Ms. Simpson stated that this will be a topic that the recycling video group will address: how to encourage recycling and reuse without citing specific recyclables that may hurt some communities that want to encourage specific recyclables. She mentioned that this higher message, promoting reuse and regionally accepted materials, can be used in conjunction with a specific community message that applies to a particular municipality.

Mr. Ruiz recommended that the recycling video group speak with MRF's because they could provide good input and direction on acceptable and non-acceptable materials. Chair Smith indicated that the recycling group has reached out to Material Recovery Facilities. Ms. Simpson replied that there is not specificity yet with the recycling videos and any input is appreciated.

J.B. Shaw, Arizona Department of Environmental Quality, responded that the videos will mainly be used to gain awareness and get residents thinking of recycling so that they may reach out to their communities to find out what they can recycle.

Chair Smith stated that the videos will likely run from America Recycles Day through New Years Day to encapsulate not only holiday wrapping and parties, but also purchasing reusable packaging or avoiding materials that are not accepted as recycling. She commented that this video is stemming from a survey of the Committee in which creating common recycling messages was a top priority. Chair Smith noted that all the materials shown at the Committee received no government funding; the items were brought from homes for demonstration purposes only and will be subsequently returned. She thanked Ms. Simpson for the update.

7. Update on Regional Solid Waste Management Statistics

Julie Hoffman, Maricopa Association of Governments, provided an update on regional solid waste management statistics. She stated that draft tables for the information collection effort were reviewed at the last Committee meeting. On April 2, 2013, those tables were sent to members of the MAG Management Committee requesting assistance in compiling the 2012 regional solid waste management data. Ms. Hoffman reported that there has been a good response rate and more information is still being submitted. She noted that the private sector has been contacted as well. The goal is to have the information compiled, submitted to jurisdictions for final review, and completed by the next Committee meeting.

8. Call for Future Agenda Items

Chair Smith asked the Committee for suggestions on future agenda items. Louis Andersen, Town of Gilbert, requested an update on the waste-to-energy facility in Glendale. Mr. Ruiz indicated that an update can be provided to the Committee. He stated that Vieste is planning to break ground July 1, 2013 and an update can be provided after that date.

Chair Smith noted that the September 19, 2013 Committee meetings conflicts with WASTECON and will be rescheduled.

9. Comments from the Committee

Chair Smith asked for any comments from the Committee. With no further comments, Chair Smith thanked the Committee for participating and called for adjournment of the meeting at approximately 11:55 a.m.