

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

Tuesday, July 24, 2012
MAG Office Building
Phoenix, Arizona

MEMBERS ATTENDING

Christine Smith, Phoenix, Chair	Manuel Castillo, Scottsdale
Louis Andersen, Gilbert, Vice Chair	* James Swanson, Surprise
Cindy Blackmore, Avondale	Charlie Bladine for Mary Helen Giustizia, Tempe
# Elizabeth Biggins-Ramer, Buckeye	* Rick Austin, Wickenburg
# Tracy Conaway for Shereen Sepulveda, Chandler	* Helen Heiden, Arizona Chamber of Commerce and Industry
* Robert Senita, El Mirage	Jaclyn Palermo for Veronica Garcia, Arizona Department of Environmental Quality
Frank Lomeli, Glendale	Jill Bernstein, Keep Arizona Beautiful
Willy Elizondo, Goodyear	Tim Phillips, Maricopa County
* Chuck Ransom, Litchfield Park	* Dan Casiraro, Salt River Project
Michael Comstock for Will Black, Mesa	Alfred Gallegos, Valley Forward
* William Mead, Paradise Valley	
# Rhonda Humbles, Peoria	
Ramona Simpson, Queen Creek	
* Richard Allen, Salt River	
Pima-Maricopa Indian Community	

*Those members neither present nor represented by proxy.

#Attended by telephone conference call.

OTHERS PRESENT

Julie Hoffman, Maricopa Association of Governments	Maher Hazine, Peoria
Kara Johnson, Maricopa Association of Governments	Patrick Murphy, Mesa
# Tobie Mitchell, Los Angeles County	Brian Kehoe, Maricopa County
# Coby Skye, Los Angeles County	Christina Betz, Glendale
# George Gomez, Los Angeles County	Dave Hauser, Republic Services
	Tara Acuna, Mesa

1. Call to Order

A meeting of the MAG Solid Waste Advisory Committee (SWAC) was conducted on Tuesday, July 24, 2012. Christine Smith, City of Phoenix, Chair, called the meeting to order at approximately 10:05 a.m. Tracy Conaway, City of Chandler; Elizabeth Biggins-Ramer, Town of Buckeye; and Rhonda Humbles, City of Peoria, attended the meeting via telephone conference call.

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 April 19, 2012 Meeting Minutes

The Committee reviewed the minutes from the April 19, 2012 meeting. Cindy Blackmore, City of Avondale, moved and Ramona Simpson, Town of Queen Creek, seconded, and the motion to approve the April 19, 2012 meeting minutes carried unanimously.

4. Southern California Conversion Technology Demonstration Project

Tobie Mitchell, Los Angeles County, provided a presentation on the Los Angeles County Conversion Technology Program. She stated that she was accompanied by Coby Skye and George Gomez who are also part of the Los Angeles (LA) County Department of Public Works Environmental Programs Division. She indicated that LA County has been evaluating various technologies for over a decade and that she will discuss how conversion technologies (CTs) apply to the management of solid waste.

Ms. Mitchell gave an overview of LA County. She indicated that LA County is the most populous county in the nation, with over 10 million residents living in 88 cities and 140 unincorporated communities. Ms. Mitchell noted that approximately one million people live in the unincorporated communities, which is their primary service area for solid waste collection and programs. Each year, over 24 million tons of solid waste is generated in the County. She added that half of the 24 million tons of solid waste is diverted from disposal by recycling and waste reduction programs. Ms. Mitchell noted that the remainder of the solid waste is managed through the County's infrastructure that includes seven major landfills, four small landfills, two waste-to-energy facilities, nearly 200 transfer/processing facilities, and hundreds of waste haulers and self-haulers. She added that approximately 70 percent of waste generated in LA County is managed within the County and approximately 30 percent is transferred to surrounding counties.

Ms. Mitchell stated that the LA County Department of Public Works provides solid waste collection and recycling services to unincorporated areas through 21 exclusive residential franchises, seven Garbage Disposal Districts, a nonexclusive commercial franchise system, and an open market system. She discussed that the Department of Public Works administers a number of programs, some of which include composting, business recycling, a campaign against illegal dumping, and a waste tire program. Ms. Mitchell noted that LA County has the largest household hazardous waste and electronic waste management program in the country. She stated that a primary function of the Department is to report to the LA County Board of Supervisors on long-term disposal capacity. Ms. Mitchell noted that every 15 years a long-term solid waste planning document is prepared. The document includes waste forecasts and strategies on how to efficiently manage waste. Ms. Mitchell commented that approximately 12 years ago the LA County Board of Supervisors directed the Department to look at sustainable alternatives to landfills and managing waste locally with finite space.

Ms. Mitchell discussed conversion technologies. She stated that conversion technologies are thermal, biological, chemical processes that are capable of converting post-recycled residual solid waste into useful products and chemicals, including green fuels and renewable energy. Ms. Mitchell indicated that CTs are a non-combustion process. She mentioned that the CTs evaluated by LA County take residual waste (after recyclables have been removed) and run it through a heat injected or microbial process that converts the basic waste in to either a solid, liquid, or gas. Ms. Mitchell explained that the gases are valuable due to a high methane and carbon dioxide content that can be used for the generation of electricity or biofuels. She commented that LA County's long-term strategy has three prongs: CTs, expansion of recycling programs, and expansion of landfill capacity.

Ms. Mitchell indicated that LA County has researched the international development of conversion technologies. She stated that LA County has investigated CT projects operating in 28 countries. Ms. Mitchell noted that some of the international CT projects reviewed include thermal and gasification. She commented that Europe has over 200 anaerobic digesters that annually process nearly 6 million tons of biosolids and municipal solid waste.

Ms. Mitchell provided an overview of LA County's role in CT development. She mentioned that the Department of Public Works is evaluating and promoting the development of CTs under the direction of the LA County Board of Supervisors. Ms. Mitchell stated that CTs have been incorporated into their solid waste management approach. Due to the incorporation of CTs, LA County has conducted an in-depth evaluation of many technology processes and companies. Ms. Mitchell noted that LA County is a strong supporter of state and federal legislation that would enable the CTs to have a permitting pathway to development. She indicated that there are many legal definitions and requirements surrounding CTs which has slowed the development of CT projects in California. Currently, LA County has a few projects in development; however there are no completed facilities. Ms. Mitchell discussed that one of the ways that LA County supports the CT Program is through the landfill permit conditions which include funding to enable the program to move forward.

Ms. Mitchell presented a timeline of the Conversion Technology Program. She stated that in 1999 the LA County Board of Supervisors authorized the Department to move forward with finding landfill alternatives. Ms. Mitchell described that the Program has four phases. Phase one, which involved information gathering on various CTs and CT companies, was completed in 2004. Phase two involved an in-depth evaluation of CT companies. Ms. Mitchell indicated that phase two, which was completed in 2008, included site visits to countries operating CT facilities. She noted that finding a site partner in the County was a challenge; however, the County did find three materials recovery facilities in neighboring counties interested in partnering on a project. In 2010, the LA County Board of Supervisors approved three memoranda of understanding with the materials recovery facilities and three technology vendors for a demonstration project. Ms. Mitchell commented that also in 2010, the LA County Board of Supervisors approved the evaluation of commercial project opportunities in LA County. She added that one of the demonstration projects received a \$4.5 million grant from the California Energy Commission in 2011, which has enabled the project to move forward with development. The demonstration project will break ground next year.

Ms. Mitchell provided an overview of phase three of the conversion technology program. She stated that LA County partnered with three companies. The first company, CR&R Inc., is a solid waste hauling company that operates some recycling centers and transfer stations. Ms. Mitchell discussed that CR&R is developing an anaerobic digestion project at a recycling facility in a neighboring county. The biogas that is generated from the anaerobic digestion project will be made into vehicle fuel for their truck fleet. A fueling station will be located at the facility. Ms. Mitchell commented

that this project is expected to be operational next year. She stated the role of LA County has been as a technical advisor. Financial assistance was not provided by the County.

Ms. Mitchell discussed the remaining two demonstration projects. She indicated that the two projects were thermal projects with International Environmental Solutions and Rainbow Disposal Company. Ms. Mitchell noted that they had strong project proposals; however, the economy has posed challenges to the startup of these projects. At this time, the projects are on hold.

Ms. Mitchell stated that the purpose of involvement in the demonstration projects was to obtain operational data that would assist in the development of a commercial project in LA County. In phase four, the commercial project phase, 24 possible host sites were identified within the County and 18 locations are currently being explored. Ms. Mitchell indicated that there has been an increase in interest in these projects in the past few years due to the changes in the LA County waste system. She noted that the largest landfill in LA County will be closing in 2013, which will dramatically shift the market. Ms. Mitchell stated that many of the larger landfills are privately owned by the large haulers; therefore, they will be controlling the tip fees. She added that it is the smaller haulers that do not own landfills that are expressing interest in hosting a CT project at their recycling centers. Ms. Mitchell noted the shift in dynamics. She indicated that most of the sites being evaluated are materials recovery facilities due to convenience of the materials already being transported to those facilities. She added that existing and closed landfills and industrial zoned land have also been evaluated.

Ms. Mitchell stated that in 2011, LA County released a Request for Expressions of Interest to technology vendors and financiers to gauge interest in participation in a commercial project. The County was interested in soliciting information from technology vendors on their experience with projects, capability, and interest of participation. Ms. Mitchell stated that 11 financial institutions expressed interest in potentially funding a CT commercial project. She stated that many technology vendors provided feedback and that 36 of the vendors met the minimum criteria. Ms. Mitchell mentioned that the information gathered is now being compiled into a searchable online database resource for stakeholders that will be available on the LA County website. She noted that this online resource should be made available this summer. Ms. Mitchell discussed that an additional resource being developed is an economic model to estimate tipping fees for various types of technologies and facility sizes. This resource will also be available on the LA County website.

Ms. Mitchell discussed public outreach efforts. She stated that public outreach is a major component of the program and LA County has been working with public outreach consultants since the beginning of the project. Ms. Mitchell indicated that local and statewide outreach efforts are conducted. She noted that in May 2012, many local jurisdictions conducted visits to the California Energy Commission, CalRecycle, the Air Resources Board, and the Department of Natural Resources. Ms. Mitchell stated that these visits were effective to share the interests of local jurisdictions and discuss the benefits of CT projects for the State of California. She added that presentations are delivered to various committees, conferences, events, and organizations as part of the public outreach effort. Ms. Mitchell mentioned that the Department of Public Works recently held a successful workshop on CTs. She stated that outreach materials have been developed and are successful in aiding the ongoing endeavor of public outreach.

Ms. Mitchell concluded with four long-term benefits to the development of conversion technologies. LA County has pursued the development of CTs for the benefit of landfill diversion. Conversion technologies can divert 80 to 100 percent of residual waste (after recycling) into products and energy. The second benefit of pursuing CTs is the creation of local, green collar jobs. The environmental benefits of CTs are significant, especially the reduction in air emissions, including greenhouse gas

emissions, due to reduced truck traffic. Ms. Mitchell stated that the potential of using biofuel to fuel the solid waste equipment fleet will provide further environmental benefits. The fourth benefit is the local control over waste. Ms. Mitchell cited that with local landfills closing in the community, LA County is looking for ways to manage the waste locally.

Frank Lomeli, City of Glendale, asked why LA County focused on post-recycling residual waste instead of municipal waste conversion technologies due to the landfill shortage. Coby Skye, Los Angeles County, replied that LA County is committed to recycling as much waste as possible from the beginning. He stated that the benefit of that approach is that the recycling will require less trips, either to the landfill or CT facilities.

Mr. Lomeli inquired if LA County had researched waste-to-energy technologies in the United States. Mr. Skye responded that LA County did research many technologies; however, they did not look into traditional waste-to-energy. He noted that there are two traditional waste-to-energy facilities within LA County. Mr. Skye stated that communities in California are apprehensive regarding traditional waste-to-energy facilities and the LA County Board of Supervisors felt that the misconception of incinerators may be a challenge for waste-to-energy projects. Ms. Mitchell added that traditional waste-to-energy systems produce ash; however, conversion technologies produce either liquids, solids, or gases. Due to the output, more recyclables can be extracted from the process. Ms. Mitchell provided the example of pyrolysis technology. She stated that this thermal CT process retrieves additional metals which can then be further recycled. Ms. Mitchell stated that some biological CT processes are net producers of water. She noted the diversity of these technologies.

Mr. Lomeli asked if LA County has any research available on pyrolysis or gasification technologies. Ms. Mitchell replied that she would provide some of those resources to MAG to share with the Committee.

Chair Smith inquired how LA County has engaged high numbers of residents. Mr. Skye responded that LA County, in collaboration with the technology partner in charge of the project, reach out to the community surrounding the project site. He stated that residents are made aware of the project and questions residents may have are answered. He added that residents are encouraged to provide feedback on the project.

Chair Smith asked if LA County has experienced acceptance for projects. Mr. Skye replied that residential support has been shown with some of their demonstration projects that are farther along. He mentioned an evaluative process that requires the creation of an environmental document. Mr. Skye indicated that public workshops are then held for the environmental document, while making the document available to the public and other agencies. Mr. Skye indicated that the responses at the public hearings and workshops for the CR&R Inc. project were supportive. He added that the project was supported unanimously by the local officials.

Chair Smith thanked Ms. Mitchell and Mr. Skye for the Conversion Technology Program presentation and offering to provide additional resources to the Committee.

5. City of Glendale Landfill-Gas-to-Energy Facility

Mr. Lomeli introduced Christina Betz, City of Glendale, to present on the Glendale Landfill Gas-to-Energy Project. He stated that she is the Landfill Superintendent for the City of Glendale. Her responsibilities include landfill operations, Material Recovery Facility operations, Glendale's Gas Management Program, and a portion of the Solid Waste Administration Division. He noted that she has worked on the Landfill Gas-to-Energy Project since the beginning.

Ms. Betz presented on the Glendale Landfill Gas-to-Energy Project. She stated that the project is a renewable energy project that has been successfully turning garbage to electricity since 2010. The 2.8 megawatt biogas facility is owned and operated by Glendale Energy which is an affiliate of Sexton Energy. Ms. Betz indicated that the plant sends all of the energy produced to Arizona Public Service (APS) customers. She discussed that the decomposition of organic materials in landfills creates a highly flammable gas, consisting mainly of methane. Ms. Betz noted that instead of burning the gas that is emitted into the atmosphere, the Glendale facility is using the gas to power two 20-cylinder engines which connect to a turbine that generates electricity. She stated that this project is a joint partnership between the City of Glendale, APS, Bryan A. Stirrat & Associates (BAS), and Sexton Energy. The partnership is a combination of experience and resources that operate this state-of-the-art renewable energy facility. The Glendale Landfill Gas-to-Energy Project is the first public/private biogas facility in the West Valley and the newest of only three landfill gas-to-energy facilities in Arizona. Ms. Betz discussed that this project was also the first biogas project in the APS 240 megawatt energy portfolio which includes energy generation from solar, wind, geothermal and biomass. She stated that by including the energy from the Glendale landfill gas-to-energy facility, the combined electricity from these resources can meet the need of 60,000 Arizona homes. Ms. Betz noted that the methane gas once burned off at the Glendale Landfill is generating clean, sustainable electricity for approximately 750 homes in the West Valley and is expected to do so for the next 40 years.

Ms. Betz discussed the legal agreements of the gas-to-energy project. She stated that BAS, a local environmental engineering firm, was selected through a Request for Proposals process. Ms. Betz stated that the City entered into a Gas Rights and Lease Agreement with BAS in 2003 which gave them rights to manage the gas and provided one acre of land at the landfill for the construction of the facility. She stated that BAS partnered with a landfill gas developer, Sexton Energy, which is the parent company of Glendale Energy, the current owner of the gas plant. Ms. Betz indicated that different contract amendments have been made, the first contract amendment in 2007 extended the agreement term by ten years or until December 31, 2017. She also referred to a sublease agreement between BAS and Glendale Energy. She added that Glendale City Council approved an amendment to the Gas Rights and Lease Agreement that provided written consent so that BAS could enter a sublease agreement with Glendale Energy. Ms. Betz stated that Glendale Energy has a Power Purchase Agreement with APS that established delivery terms of the power generated to the electricity grid. The term for the Power Purchase Agreement between Glendale Energy and APS is twenty years. Ms. Betz indicated that the total project construction cost was \$6 million.

Ms. Betz noted that the landfill gas-to-energy facility began operation in early January 2010. She stated that the City of Glendale celebrated the opening of the plant with an open house/ribbon cutting ceremony on January 30, 2010. The public outreach event was titled *Lunch at the Landfill* and included tours of the gas plant and landfill site. The event was attended by over 500 citizens, dignitaries, elected officials, representatives from public/private partnerships, and industry professionals. She indicated that the number in attendance demonstrates the interest in renewable energy and sustainability projects.

Ms. Betz provided a virtual tour of the gas plant. She stated that the Glendale Landfill location includes the 320 acre landfill, the Glendale Energy Gas Plant, the Glendale Materials Recovery Facility, and the Glendale Regional Public Safety Training Center. She commented that the Glendale Materials Recovery Facility currently process approximately 15,000 tons of recyclables, most coming from the City of Glendale Residential Recycling Collection Program. Ms. Betz indicated that the 80 acre Public Safety Training Center site was planned for landfill operations;

however, it is now an Emergency Operations Center that serves West Valley Public Safety Officials. This was identified as a more immediate need due to the landfill life remaining.

Ms. Betz presented an overview of the gas collection system and facility operations. The south area of the landfill, approximately 140 acres in size, provides methane gas through 73 vertical gas extraction wells and six horizontal extraction wells. Ms. Betz indicated that the gas inlet pipe that supplies the gas to the plant from the extraction wells is located on the north side of the building. The gas inlet pipe is outfitted with a field instrument that measures the gas quality daily. Ms. Betz added that the typical range for methane content is 40 to 50 percent, however this can depend on the regional location of the landfill.

Ms. Betz describes facility operations. She stated that the gas travels from the inlet pipe into the engines, which are responsible for power generation. The plant operates two 1.4 megawatt, 20 cylinder combustion engines that drive the turbines that produce the electricity. Ms. Betz stated that the facility control room contains the computer system that monitors the engines. Each engine has its own computer system that monitors engine performance and energy production. She commented that each engine produces energy at approximately 4,000 volts. The energy produced is then converted using switch gear, which is equipment responsible for delivering electricity to APS customers through a 69,000 volt substation that is located outside the facility. Ms. Betz indicated that the electrical substation did require a utility easement to be approved by the Glendale City Council prior to construction. She described that the site also has a gas flare backup system and a condensate tank. Ms. Betz noted that the gas flare was primarily used before the energy gas plant facility was in operation and it is now only used when the engines are down for scheduled maintenance or other unforeseen circumstances.

Ms. Betz discussed the project economical and environmental benefits. She stated that the environmental benefits include: directly reducing greenhouse gas emissions, generation of renewable energy, and offset use of nonrenewable energy such as coal and oil. Ms. Betz noted economic benefits include: revenue generation from the sale of gas, creation of jobs, and an indirect cost savings with using landfill gas as a replacement for more expensive fossil fuels in the generation of electricity.

Ms. Betz presented the operational challenges. She stated that Glendale's previous role in managing gas condensate was minimal prior to the operation of the gas-to-energy project. Ms. Betz mentioned that after about 10 months of operation, Glendale Energy had to install an air chiller to reduce the temperature of the gas before it went to the engines; however, this added more gas condensate to manage. The management of the gas condensate would have added an increased cost of approximately \$50,000 for contracted septic hauling of the gas condensate. She explained that the costs of managing the gas condensate were alleviated due to an in-house project that pipes the gas condensate into the active landfill.

Ms. Betz discussed that maintaining an optimum level of gas quantity and quality is an ongoing challenge of the gas developer to meet the performance standards identified in the Power Purchase Agreement. She stated that another challenge is the balance between gas production and compliance goals. Ms. Betz indicated that a recent challenge has been siloxane removal. She stated that siloxane has been found in high concentrations in the landfill gas which causes issues with the engines. Glendale Energy is looking to install a system that removes siloxane from the gas.

Chair Smith asked how often the gas flare system is used and if the downtime is predictable. Ms. Betz responded that there is minimal use of the gas flare system. She commented that the flare

system is mainly used when there is scheduled maintenance on the engines or if there is an unforeseen situation with the equipment. In the case of unforeseen equipment malfunction, repairs or temporary repairs are made within hours. Ms. Betz discussed that the downtime of the system is predictable.

Chair Smith inquired if the compliance program had to be modified to accommodate energy production. Ms. Betz replied that modifying the compliance program was not necessary. She stated that good communication and an established relationship between Glendale, Glendale Energy, and BAS has assisted in maintaining compliance.

Willy Elizondo, City of Goodyear, inquired about the use of the energy produced. Ms. Betz indicated that all of the energy produced is delivered to APS customers through the electricity grid.

Chair Smith asked when the Power Purchase Agreement was entered. Ms. Betz responded that Glendale Energy entered in the Power Purchase Agreement in March 2009. Chair Smith thanked Ms. Betz for presenting on the Glendale Landfill Gas-to-Energy Project.

6. Solid Waste Best Practices Questionnaire

Julie Hoffman, Maricopa Association of Governments, provided an overview of the Solid Waste Best Practices Questionnaire. She stated that the MAG Management Committee expressed interest in reconvening the MAG Solid Waste Advisory Committee to share ideas on best practices. Ms. Hoffman indicated that a survey was distributed to the Committee in March 2012 that asked about best practices occurring in the region. She noted that many jurisdictions have presented best practices to the Committee. Ms. Hoffman stated that a draft questionnaire has been produced in order to prepare a comprehensive list of solid waste best practices for the region. She inquired if any members have questions or suggestions on the questionnaire prior to distribution. Ms. Hoffman commented that following approval of the draft best practices questionnaire for distribution, the questionnaire would be sent out and responses compiled. The final document would be presented to the Committee.

Elizabeth Biggins-Ramer, Town of Buckeye, asked if the questionnaire would be distributed in an electronic format where jurisdictions would be able to type in the information. Ms. Hoffman replied yes.

Maher Hazine, City of Peoria, commented that the American Public Works Association (APWA) has a public works accreditation program with a manual of best practices that is available for solid waste. Mr. Hazine inquired if the Committee would be interested in the APWA document which outlines best practices that can be employed. Mr. Hazine mentioned that local agencies that have gone through accreditation are employing these best practices. Chair Smith stated that this could be a useful resource.

Mr. Elizondo moved and Jill Bernstein, Keep Arizona Beautiful, seconded, and the motion to approve the Solid Waste Best Practices Questionnaire for distribution carried unanimously.

7. MAG Regional Solid Waste Management Plan

Ms. Hoffman discussed the data included in the MAG Regional Solid Waste Management Plan. She indicated that the results from the Solid Waste Advisory Committee Survey conducted in March 2012 identified aspects of the 2005 MAG Regional Solid Waste Management Plan that would be

beneficial to review and update. Ms. Hoffman noted that the areas mentioned included: solid waste statistics, solid waste management facilities, and programs being implemented. Various tables in the 2005 MAG Regional Solid Waste Management Plan were included in the Committee agenda packet. Ms. Hoffman inquired if the provided tables are of interest to the Committee to update. She asked if the Committee has suggestions on other useful information to collect. Ms. Hoffman indicated that recycling has been an area of interest for the Committee. She noted that the information on the tables is from 2002.

Louis Andersen, Town of Gilbert, stated that the provided tables are of interest with regard to updating. He added that a table with recycling, recycling diversion rates, and green waste would be useful. Mr. Andersen commented that the recycling information could be provided alongside the residential total volumes.

Ms. Biggins-Ramer inquired about a separate table for reduction activities. She noted that this could include tonnage statistics and what constitutes as recycling for specific recycling programs.

Tracy Conaway, City of Chandler, discussed diversion rates. She stated that many agencies have varying formulas and calculation methods. Ms. Conaway inquired about one formula being provided to ensure that agencies are calculating the rates similarly. Ms. Biggins-Ramer commented that it is important to compare similar items to avoid misinformation.

Ms. Conaway stated that the City of Chandler contracts their materials recovery facility with United Fibers. She stated that statistics for the facility are percentages based on sorts. Ms. Conaway discussed the idea of a footnote labeling the data provided on the updated tables as best estimates. Ms. Biggins-Ramer stated that was a valid point. Ms. Conaway also commented on contamination rates.

Mr. Hazine discussed performance measures. He noted that operator status, number of employees, miles traveled, rate information, tons of waste collected, average ton per resident, and basic performance measures would be useful to gather. Mr. Hazine indicated that the City of Peoria recently underwent a rate analysis and having information on the fundamentals of operation is beneficial. He inquired about employing a mechanism that would update information on a more frequent basis.

Chair Smith asked if member agencies have reports available on performance measures. She stated that municipalities can provide Ms. Hoffman with that information if available.

Chair Smith discussed pre-system activities. She commented that waste diverted before entering the solid waste management system is difficult to quantify. Chair Smith asked if the Committee is interested in attempting to measure diversion rates of pre-system activities. Mr. Andersen noted that he was interested.

Ramona Simpson, Town of Queen Creek, asked if the tables included in the agenda packet will be sent out for update. She discussed that new facilities, locations, closed facilities, materials accepted are all components that would be important to update. Ms. Simpson stated that the updated information would be valuable for the region in terms of collaboration.

Ms. Hoffman stated that MAG staff will draft tables for Committee review based on the feedback received.

8. Call for Future Agenda Items

Chair Smith asked the Committee for suggestions on future agenda items. She discussed that Household Hazardous Waste (HHW) has been identified as a topic of interest with the Committee, specifically the discussion of regional HHW collaboration. Ms. Biggins-Ramer stated that this would be an interesting topic in that consortiums and co-operated programs can benefit communities who work together while also having economic benefits. Chair Smith encouraged Committee members to contact Ms. Biggins-Ramer if interested.

Chair Smith inquired if the discussion today met the request from Chandler to hear about conversion technologies. Ms. Conaway inquired if communities have been approached by companies or know of projects moving forward in the State. Chair Smith stated that City of Mesa and other cities have been approached. She stated that she will look into it further.

Mr. Andersen proposed an agenda item with regard to recycling scavenging issues. He asked if other jurisdictions have permits, best practices in place, or enforcement codes with regard to scavenging. Ms. Conaway commented that the City of Chandler is challenged by scavenging as well. Mr. Hazine discussed that City of Peoria faced challenges with commercial recycling scavenging; however, the City modified the receptacles that impede the theft of materials. He stated that Peoria views the scavenging issue as lost revenue. Ms. Conaway stated that the Valleywide Recycling Partnerships will be addressing the issue of scavenging at an upcoming meeting. She stated that Chandler has an ordinance against scavenging and violators can be cited; however, it has not hindered the activity. Ms. Conaway stated that Chandler has experienced lost revenue from metals that are being scavenged from bulk waste. She added that Chandler will report to the Committee after the Valleywide Recycling Partnership meeting. Chair Smith thanked Ms. Conaway.

Chair Smith stated that two primary goals of the Solid Waste Advisory Committee when convened was to identify best practices in the region and common solid waste issues. With the completion of the best practices expected soon, she asked Committee members to determine what their city managers would like to see from the Solid Waste Advisory Committee. She inquired what the cities are interested in doing. Chair Smith commented that a clear Committee direction and goals are needed.

Chair Smith discussed diversion rates. She commented on topics such as glass recycling, green waste, and MAG specifications. She again encouraged Committee members to talk with their managers on activities for the Committee that they would support.

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 11:35 a.m.