

MINUTES OF THE  
MARICOPA ASSOCIATION OF GOVERNMENTS  
WATER QUALITY ADVISORY COMMITTEE MEETING

Monday, November 8, 2010  
MAG Office Building  
Phoenix, Arizona

MEMBERS ATTENDING

David McNeil, Tempe, Chair	Rich Williams Sr., Surprise
David Iwanski, Goodyear, Vice Chair	Suzanne Grendahl, Scottsdale
Barbara Chappell, Avondale	Kevin Chadwick, Maricopa County
* Buckeye	* John Boyer, Pinnacle West Capital
Robert Goff, Chandler	Jim Kudlinski, Salt River Project
# Dave Emon, El Mirage	* Summer Waters, University of Arizona
Kathy Rall for Lonnie Frost, Gilbert	Cooperative Extension
Lawrence Brotman, Glendale	# Michael Byrd, Salt River Pima-Maricopa
Kathryn Sorenson, Mesa	Indian Community
* Brian Biesemeyer, Peoria	* Carole Klopatek, Fort McDowell Yavapai
Randy Gottler, Phoenix	Nation
Greg Homol, Queen Creek	Glenn Stark, Gila River Indian Community

\*Those members neither present nor represented by proxy.

#Attended by telephone conference call.

OTHERS PRESENT

Julie Hoffman, Maricopa Association of Governments	Joe Graham, Dibble Engineering
Patrisia Magallon, Maricopa Association of Governments	Doug Kobrick, Doug Kobrick, PE, PLC

1. Call to Order

A meeting of the MAG Water Quality Advisory Committee was conducted on Monday, November 8, 2010. David McNeil, City of Tempe, Chair, called the meeting to order at approximately 9:30 a.m. Michael Byrd, Salt River Pima-Maricopa Indian Community, and David Emon, City of El Mirage, attended the meeting via telephone conference call.

2. Agenda Announcements

Chair McNeil provided an opportunity for member agencies to report on activities of interest in their agencies.

3. Call to the Audience

Chair McNeil 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.

Joe Graham, Dibble Engineering, informed the Committee of the new technology being developed in the valley for rehabilitation in potable water lines. He stated that the Committee may be familiar with the work being done on sewer water lines; however, Dibble Engineering has new technology that can rehabilitate water lines. Mr. Graham noted that Dibble Engineering may come before the Standard Specifications and Details Committee in the future to develop specifications.

4. Approval of the June 1, 2010 Meeting Minutes

The Committee reviewed the minutes from the June 1, 2010 meeting. David Iwanski, City of Goodyear, moved and Lawrence Brotman, City of Glendale, seconded, and the motion to approve the June 1, 2010 meeting minutes carried unanimously.

5. Chair and Vice Chair Appointments

Julie Hoffman, MAG, stated that in July 2009, the MAG Regional Council approved the MAG Committee Operating Policy and Procedures. According to the policies and procedures, officer positions for technical committees have one-year terms, with possible reappointment to serve up to one additional term, by consent of the respective committee. She noted that the chair and vice chair appointments of the MAG Water Quality Advisory Committee are due to expire on December 31, 2010. Ms. Hoffman indicated that the Committee may choose to recommend reappointment of the current chair and vice chair to serve a second one-year term, or have the vice chair ascend to the chair position and have a new vice chair appointed by the MAG Regional Council Executive Committee.

Rich Williams, City of Surprise made a motion to recommend the reappointment of the current chair and vice chair to serve a second one-year term. Kathryn Sorenson, City of Mesa, seconded, and the motion to recommend reappointment of the current chair and vice-chair to serve a second one-year term carried unanimously.

6. Update to the MAG 208 Water Quality Management Plan

Chair McNeil stated that at the last meeting, Ms. Hoffman discussed updating the 208 Plan to incorporate the amendments and small plant review and approvals that have occurred since the last comprehensive update. He added that the Committee engaged in a discussion of how it could review the Plan and possibly incorporate sustainability concepts.

Ms. Hoffman stated that MAG staff is in the process of incorporating into the 208 Plan document the amendments and small plant review and approvals that have been approved by the MAG Regional Council since the 208 Plan was last updated in 2002. She added that the 208 Plan is also being revised to include the most recent MAG approved population projections and Municipal Planning Areas. Once the information is incorporated into the plan, the draft descriptions will be provided to the jurisdictions for their review.

Chair McNeil stated that the Committee met in June and discussed incorporating information into the 208 Plan that was not emphasized in the last plan update. He commented on regional wastewater treatment versus distributed wastewater treatment. Chair McNeil indicated that the Committee discussed several ideas including energy issues and reclaimed water use. He added that the Committee also discussed having the MAG Water Quality Advisory Committee review the 208 Plan and suggest the incorporation of some of these principles into the Plan. Chair McNeil inquired if anyone reviewed the Plan since the last Committee meeting. Ms. Sorenson responded that she

reviewed the 208 Plan. She stated that it would be worthwhile for the Committee to address issues that are related to reclaimed water. Ms. Sorenson noted that the Governor's Blue Ribbon Panel is very active with this issue. She commented on discussing some of the points related to managing wastewater as a region.

Ms. Sorenson inquired if small plants, once they are approved, have some period of a time attached in which they must move forward. Ms. Sorenson asked if the approval is given once even if the project does not move forward. Ms. Hoffman responded that once an amendment or small plant review and approval is approved by MAG, ADEQ, and EPA, it becomes part of the 208 Plan. She noted that there are plants in the 208 Plan that have never been built. However, if a 10mgd plant goes through the amendment process and the jurisdiction later decided that the plant needs to be 12mgd, they would need to come back through the amendment process in order for the facility to be consistent with the 208 Plan. Ms. Sorenson commented that she has no interest in revoking any approval. She added that it seems that once a plant is approved, as long as it is built in the manner in which was originally approved, it could be in the 208 Plan for decades. Ms. Hoffman agreed and added that there are also cases where a new plant may impact a facility already in the 208 Plan. For example, the Belmont plant was included in the 2002 MAG 208 Plan; however, an amendment approved in 2007 for Global Water indicated that the Belmont facility, which was never built, would be replaced with another facility.

Chair McNeil inquired about others submitting a new plan for a subdivision when another entity previously had a plan amendment for the same area. Ms. Hoffman responded that the 208 amendments and small plant review and approvals go through the jurisdiction in which the facility would be located. She added that it is the jurisdictions that provide MAG with the wastewater treatment configuration for their service areas.

Chair McNeil commented on the last 208 Plan update in 2002. He added that each jurisdiction was provided an opportunity to review details on the Plan and report their proposed changes to the Plan. Chair McNeil indicated that the City of Tempe had a plan description of a Rio Salado Reclamation Plant; however, the City has made changes and subsequently removed the plant. He mentioned that it makes sense that each jurisdiction go back and recommend changes to their sections during the incorporation of all the 208 amendments and small plant review and approvals. Chair McNeil commented on the changes in population projections and flow projections. He stated that there were flow projections for certain plants that were overly optimistic. Chair McNeil commented that there has been significant reductions in flows over the last decade. He suggested that the Committee keep the idea of incorporating sustainability principles with the amendments and small plant review and approvals that are being incorporated into the Plan. He stated that each jurisdiction should have an opportunity to provide comments and changes to their section in the Plan. Chair McNeil indicated that this is an opportunity for the Committee to have discussion on the Plan while development is not rapidly occurring. He proposed a January meeting in which each jurisdiction is notified of the intent to modify the Plan and have opportunity to go through and recommend changes for their section. Chair McNeil volunteered to incorporate language for reclaimed water and sustainability.

Ms. Sorenson stated that she hopes that the document would discuss what is currently being done with reclaimed water in the region. Ms. Sorenson noted that there is a lot of diversity. She mentioned that she would like to see an update as to where the water is currently going and how it is currently being used. Chair McNeil inquired if she wanted see this update being described for each jurisdiction or in general. Ms. Sorenson responded that while it is important to look at each jurisdiction, she would hope that reclaimed water would be looked at regionally in terms of what is good for the region and how the region is making good use of the water.

Chair McNeil stated that reclaimed water as a region might set a tone for goals. He asked if a vote was needed. Ms. Hoffman responded that this item is for information and discussion.

Kathy Rall, Town of Gilbert, inquired if the goal of determining the use of reclaimed water and gray water in the region would parallel the Blue Ribbon Panel or if it would be in addition to the Blue Ribbon Panel. Ms. Rall noted that there is extensive work being done through the Blue Ribbon Panel on this topic. Chair McNeil responded that the idea would be to paint a picture of what is occurring in the region. He stated that the incorporation of goals for reclaimed water concepts in the Plan would not be nearly as specific as the Blue Ribbon Panel. Chair McNeil added that ultimately, the Plan would state that regional wastewater treatment in Maricopa County should be geared toward encouraging and maximizing the use of reclaimed water to ensure sustainability in the region. He indicated that the Plan would not get too specific.

Ms. Sorenson discussed the role of the Committee in approving wastewater treatment plants. She stated that there are a lot of issues with reclaimed water that relate to wastewater treatment plants. Ms. Sorenson noted that in certain areas this could add to a regional goal or take away from a regional goal. She agreed to keep the update general and focus on the true purpose of this Committee.

Mr. Iwanski stated that he would like the Municipal Planning Area boundaries updated. He added that the City of Goodyear is currently updating their service area map which is done on an annual basis. Mr. Iwanski noted the annexation in Goodyear as a prime example to changes in Municipal Planning Areas. He mentioned that the Committee needs to make sure that these boundaries are updated as part of this effort. Mr. Iwanski added his support for the update of the Plan. Chair McNeil stated that the update of the Municipal Planning Areas should be part of the individual jurisdiction updates.

#### 7. Green Projects and Programs for Water and Wastewater Infrastructure

Chair McNeil stated that this agenda item is related to the MAG workshop that was held on January 12, 2010 where there was discussion on ways to make water and wastewater infrastructure more sustainable. There was also discussion on opportunities for renewable energy production, energy efficiency, and other sustainable concepts. He added that this agenda item is an opportunity for Committee members to report on “green” projects within their jurisdictions.

Chair McNeil commented that the City of Tempe, as part of their Department of Energy (DOE) grant, conducted city-wide energy audits for its facilities. He indicated that they are approaching the 90 percent phase of that project. Chair McNeil mentioned that the City is looking to implement certain energy retrofits that would make Tempe more efficient. Chair McNeil commented that the City of Tempe is finding that they have been very proactive with water solutions. He added that there are a couple of big ticket items that the City has had an opportunity to retrofit and become more energy efficient. Chair McNeil indicated that they are incorporating energy efficient infrastructure.

Chair McNeil stated that Tempe is looking at a feasibility study to possibly collect yellow and brown grease from Tempe restaurants to eventually be turned into biodiesel. He added that this would be done at a Tempe facility or through various forms of partnerships. Chair McNeil commented that the information that is gathered from the study would be of interest to many in the region. He noted that this becomes more feasible if done on a larger scale. Chair McNeil indicated that he will be talking to some of the Committee members in approximately six months to a year about additional efforts to get FOG out of the sewers. He mentioned that he went to San Francisco to look at their program. Chair McNeil added that San Francisco also has a grant funded pilot at which they take

grease from traps and convert it to biodiesel. He commented that this was an exciting tour and an exciting concept.

Ms. Rall stated that the Town of Gilbert has partnered with SPG Solar for the placement of solar panels at the Neely Recharge Project. She noted that she did not have all the specific information; however, she could provide the name of the person for those who are interested. Ms. Rall added that the energy generated from solar panels will help to offset the cost of running the Neely Wastewater Treatment Plant. She indicated that this is an exciting grant funded project. Chair McNeil inquired about the grant. Ms. Rall responded that she did not have the specifics. She indicated that Mark Horn, Gilbert Wastewater Superintendent, could provide that information.

Ms. Sorenson stated that Mesa's efforts are similar to those in Tempe. She added that the City of Mesa is also undergoing an audit. Ms. Sorenson commented that they have been upgrading their infrastructure and are looking at FOG as part of their contract with Siemens. Ms. Sorenson mentioned that Siemens is performing the audit and is looking at the feasibility of a FOG program. She noted that the City of Mesa is updating their sewer code. Ms. Sorenson mentioned public-private partnership companies and added that it would be interesting to see what everyone is doing and who they are partnering with.

Chair McNeil inquired if it would be valuable to bring someone to a future meeting to discuss power purchase agreements. Ms. Sorenson responded that it would be a great idea; however, there are a lot of these companies and inquired about how the Committee would choose fairly. She added that she would like to hear what everyone is doing on this issue. Chair McNeil commented that ASU entered into a power purchase agreement. He added that a possibility may be to bring in ASU to speak on how the power purchase agreement works. Chair McNeil mentioned that power purchase agreements were discussed at the MAG workshop.

Ms. Sorenson stated that the City of Mesa has co-generation at its Northwest Water Reclamation Plant. She thanked Salt River Project (SRP) for buying their green energy credits and added that the City is working with SRP on an agreement. Ms. Sorenson commented that after the agreement is completed, it becomes an SRP project. She noted that the goats that are used for weed control at the Northwest Water Reclamation Plant will also be coming back. Chair McNeil inquired if Mesa is making changes to the co-gen. Ms. Sorenson responded no and indicated that co-gen works well and offsets a lot of their power cost. Ms. Sorenson indicated that the City is looking at resizing it if the numbers work out for the City.

Chair McNeil stated that the San Francisco facility, which turns brown grease into biodiesel, has a fairly small percentage of recovery. He added that he thinks three to five percent of the brown grease can be recovered for biodiesel after it is dewatered. Chair McNeil indicated that the main product is a nutrient rich water that is fed directly into the digesters. He noted that they are looking at a return of investment of one to three years.

Mr. Williams stated that the City of Surprise has a solar project at City Hall. He referred to audits and indicated that they have been able to select some energy and chemical savings. Mr. Williams discussed the wet odor scrubbers and the amount of chemicals being supplied. He indicated that the City's biggest success is their continued efforts to use reclaimed wastewater for open space irrigation. Mr. Williams mentioned that the City of Surprise has converted two HOA open space areas into being irrigated with reclaimed water. He noted that the City is negotiating a third area. Mr. Williams stated that in addition to their existing recharge basins, the City has added five recharge vadose zone wells. He added that the City is working to get ten new recharge wells.

Suzanne Grendahl, City of Scottsdale, stated that the City is also going through energy audits. She added that years ago, the City installed solar panels on the reservoirs to the CAP plant in association with APS. Ms. Grendahl indicated that the City of Scottsdale is in the process of going through an optimization program and has a contractor in place. She noted that the City is in phase one of the program. Ms. Grendahl commented that the City is working on optimizing the entire water and wastewater system from a staffing perspective as well as technology to be able to optimize water sources and water quality. She mentioned that the energy optimization is the biggest portion which would allow the City to save energy throughout their facilities. Ms. Grendahl added that the City of Scottsdale is currently doing some reverse engineering and forward engineering. She noted that the process will take approximately 18 months and the City will be able to see what improvements they will be able to make. Chair McNeil inquired if the City was using DOE funds. Ms. Grendahl responded that she did not have the funding information available.

Greg Homol, Town of Queen Creek, stated that the Town does not currently have any greening projects. He added that the Town is completing stages of a wastewater master plan update and will subsequently update the water distribution master plan. Mr. Homol commented on Arizona Biodiesel.

Randy Gottler, City of Phoenix, stated that the City is looking at moving away from chemical odor scrubbers and is currently using bio-scrubbers in their facilities. He added that the City of Phoenix is also working on new reclaimed water projects near Cave Creek which will include injection wells and reclamation of the ground wells at a later time. Mr. Gottler indicated that the City of Phoenix is working with the Public Works Department on the possible sale of methane gas at its 23<sup>rd</sup> Avenue Plant. He noted that there is also a large solar project under consideration for a landfill in the west valley.

Lawrence Brotman, City of Glendale, stated that Glendale also received a DOE grant. He discussed the Trojan4000 UV System and indicated that the new system would result in 40 to 60 percent power savings. He mentioned that the City is also looking at more efficient blowers for the plants.

Robert Goff, City of Chandler, stated that a few years ago the City conducted an energy audit for water and wastewater utility. He added that a monthly report was produced for the amount of energy, water, and kilowatts used for the facilities in the City of Chandler. Mr. Goff indicated that the City has not had any problems with their equipment since their facility is fairly new. He commented on power purchasing agreements in the future and added that the City of Chandler is doing an in-house optimization.

Kevin Chadwick, Maricopa County, stated that the County does not operate water and wastewater facilities. He noted that the County has seen a number of projects submitted for turbine blowers. Mr. Chadwick added that this seems to be a popular energy retrofit project. He commented that this is exciting new technology since and involves the use of jet engines for wastewater treatment plant blowers.

Mr. Iwanski stated that the City of Goodyear is embarking on an ordinance for reclaimed water. He added that the City has three HOAs and one high school that have expressed interest in using reclaimed water for irrigation purposes. Mr. Iwanski mentioned that there has been continuous conversations on energy audits and savings with APS.

Dave Emon, City of El Mirage, stated that in the last two years, the City has switched over to turbo blowers. He added that the City of El Mirage has also looked at pump design and the opportunity

for energy savings. He commented that the City of El Mirage is evaluating other opportunities as well.

Michael Byrd, Salt River Pima-Maricopa Indian Community, stated that he did not have anything to report for the Community; however, he is interested in what is going on in the region.

8. Legislative and Regulatory Update on Water Quality Related Items

Chair McNeil stated that this is an opportunity for open discussion on any legislative and regulatory issues related to water quality. Ms. Sorenson inquired if anyone is using direct reclaimed water or recovered reclaimed water for urban lakes. Mr. Brotman responded that the City of Glendale uses direct reuse for the Arrowhead area and for several decorative lakes. Ms. Sorenson inquired if the lake was stocked with fish. Mr. Brotman responded yes. Ms. Sorenson inquired if the Arizona Game and Fish Department will stock fish in reclaimed water lakes. Mr. Brotman indicated that there is fish in the Arrowhead Lake and the lake is handled by an HOA group.

Chair McNeil stated that Ms. Sorenson is referring to the Urban Fishing Program under the Arizona Game and Fish Department. He added that the City of Tempe has several lakes under that program. Chair McNeil indicated that although the City backed away from the idea, the City had plans to add reclaimed water to Tempe Town Lake several years ago. He noted that he has not heard any discussion on stocking fish for reclaimed water lakes.

Mr. Iwanski stated that the City of Goodyear uses commingled reclaimed and groundwater to fill the lakes at Estrella Mountain Ranch. He added that the lakes are stocked but did not know if they were stocked by the developer HOA or a regulatory agency. Mr. Iwanski commented that he would find additional information and relay it to Ms. Sorenson.

Chair McNeil stated that the fishing programs only stock public municipal lakes. He added that he was not aware of any private lakes under that program. Ms. Rall commented that the Town of Gilbert has several lakes that are direct reclaimed water delivery. She added that the Town also has several lakes that are recovered reclaimed water from shallow wells. Ms. Rall noted that the urban fishing lakes are also recovered reclaimed water. She indicated that there are several communities with direct delivered lakes that have fish in them; however, the community itself supplies the fish.

Chair McNeil inquired if the Arizona Game and Fish Department stated that they will not stock a reclaimed water lake. Ms. Sorenson responded that she heard they will not stock lakes with direct reclaimed water. She wanted to see if this statement she heard was true. Chair McNeil commented that the lakes under the fishing program are held to standards that are designed to help the ecosystem.

9. Call for Future Agenda Items

Chair McNeil announced that a future meeting will be called to discuss the update to the 208 Plan. He also suggested that ADEQ could give an overview of the Blue Ribbon Panel progress and status. With no further comments, Chair McNeil thanked the Committee for participating and called for adjournment of the meeting at 10:27 a.m.