

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

Thursday, June 5, 2003
MAG Office Building
Phoenix, Arizona

MEMBERS ATTENDING

Roger Klingler, Scottsdale, Chairman	Phoenix: Robert Hollander
#Avondale: Esmeralda Avila	Surprise: Rich Williams
#Chandler: Robert Goff for Jacqueline Strong	Tempe: David McNeil
Gilbert: Lonnie Frost	Maricopa County: Dale Bodiya for John Power
Glendale: Chris Ochs	*Pinnacle West Capital: John Boyer
#Goodyear: Joel Wade	*Salt River Project: Ray Hedrick
Mesa: William McCarthy for Bill Haney	*U of A Cooperative Extension: Patrick Clay
Peoria: William Mattingly for Kevin Kadlec	*Citizen Representative: Eugene Jensen

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

OTHERS PRESENT

Pacific Advanced Civil Engineering: Duong Do	Shangri-La Ranch Resort: Horst Kraus
Pacific Advanced Civil Engineering: Andrew Komor	Maricopa Association of Governments: Craig Chenery
Pacific Environmental Resources Corporation: Steve Owen	Maricopa Association of Governments: Brenda Geisen
Southwest Ground-water Consultants, Inc.: Nathan Miller	

1. Call to Order

A meeting of the MAG Water Quality Advisory Committee was conducted on Thursday, June 5, 2003 at 4:00 p.m. Roger Klingler, Chair, City of Scottsdale, called the meeting to order.

2. Approval of the May 12, 2003 Meeting Minutes

The Committee reviewed the draft minutes from the May 12, 2003 meeting. Chris Ochs, City of Glendale, moved and Robert Hollander, City of Phoenix, seconded, and it was unanimously carried to approve the minutes from the May 12, 2003 meeting.

3. Draft MAG Small Plant Review and Approval for the Proposed Shangri-La Ranch Wastewater Treatment Facility

Chairman Klingler indicated that agenda item number three was for information, discussion, and possible recommendation of approval of the proposed Shangri-La Ranch Wastewater Treatment Facility as part of the MAG 208 Water Quality Management Plan. He introduced Horst Kraus of Shangri-La Ranch Resort to provide an overview of the project.

Mr. Kraus indicated that the proposed Shangri-La Ranch Wastewater Treatment Facility would be located at the Shangri-La Ranch Resort on forty acres in the New River area. He indicated that the resort is bounded by New River on the north, 7th Avenue on the west and Circle Mountain Road on the south. He indicated that the proposed plant would have an ultimate capacity of 20,000 gallons per day.

Mr. Kraus indicated that the resort has been served by septic systems since 1959 and the Maricopa County Board of Supervisors has required abandonment of the existing septic systems and installation of a wastewater treatment plant as a condition to the expansion of the resort. He indicated that the proposed plant would allow daily monitoring of effluent from the plant. The plant would be located on the southwest corner of the property and would rely on flow by gravity.

Mr. Kraus indicated that the proposed plant would lie within the City of Phoenix Municipal Small Plant Planning Area and the City has indicated that they do not have plans to serve the resort at this time. He indicated that he has been working with the County on good places to locate the twelve seepage pits and that there is extra room for another twelve if needed. The plant would include an enclosed lab for sampling and evaluation of the effluent and some fiberglass components. Mr. Kraus indicated that he is a sanitarian and understands the potential effects of nitrates on pregnant women and fetuses.

Lonnie Frost, Town of Gilbert, inquired whether wells for water supply were located in the same proximity as the seepage pits.

Mr. Kraus indicated that there are five wells which would be located within proximity of the seepage pits from the plant and that Shangri-La is also licensed as a water works through the Arizona Department of Environmental Quality (ADEQ).

Chair Klingler inquired whether the seepage pit use of effluent would be permitted separately.

Mr. Kraus indicated that a meeting was scheduled with ADEQ for the next day to discuss the Aquifer Protection Permit issues and plant design would be according to State requirements.

Mr. Frost indicated that the designed wastewater treatment capacity was equal to the resort's potable water supply and inquired whether the plant would be oversized.

Mr. Kraus indicated that they began with the 10,000 gallon per day figure and extrapolated to derive the 20,000 gallon per day treatment design capacity. He indicated that about 10,000 gallons per day

is currently seeping through the septic systems and construction of the plant would allow them to control what goes back into the aquifer.

Mr. McNeil requested elaboration on the nature and thickness of the fiberglass components.

Mr. Kraus indicated that the fiberglass would meet any State and County requirements and would be similar to fiberglass used in the Burger King Wastewater Treatment Plant located near Carefree Highway and 7th Street.

Mr. Hollander indicated that it was his understanding that the proposed project would be a pre-fabricated plant, rather than simply a fiberglass tank in the ground, and inquired whether his understanding was accurate.

Mr. Kraus indicated that Mr. Hollander's understanding of the plant was accurate and that an NSF approved resin would be used by American Fiberglass.

Dale Bodiya, Maricopa County, indicated that the Burger King plant had not been a pre-fabricated plant and was custom designed.

Joel Wade, City of Goodyear, inquired whether tertiary treatment was required for the clarifier.

Mr. Kraus indicated that they are working with the County, that the plant would meet all County requirements, that the plant would be built to the best specifications, and that filtration would be included if required by the County.

Mr. Wade indicated that possible problems in the clarifier may be caused by an imbalance of nutrients with this type of plant and loadings. He referred to the hydrologic loading versus the amount of organic loading.

Mr. Bodiya indicated that, under the new State Aquifer Protection Permit Rules, plants with less than 250,000 gallons per day have reduced standards and a twenty-thirty effluent requirement applies. He indicated that the County requires filtration when there are concerns over viability of soil permeability and seepage pits and that the County would consult with ADEQ on whether sand filtration would be appropriate for this plant. He indicated that septic systems are generally considered a temporary treatment option and that the proposed plant would provide better treatment.

Mr. Hollander indicated that the proposed plant would allow for a much higher level of wastewater treatment than that accomplished by the existing septic systems.

Mr. Kraus indicated that Shangri-La Ranch would be willing to hook up to City infrastructure if it were to become available in the future.

Mr. Hollander moved to recommend approval of the proposed Shangri-La Ranch Wastewater Treatment Facility as part of the MAG 208 Water Quality Management Plan. Mr. Bodiya seconded, and it was unanimously passed by the Committee.

4. Draft MAG 208 Plan Amendment for the Town of Buckeye Tartesso West Water Reclamation Facility

Chairman Klingler indicated that agenda item number four was for information, discussion, and possible authorization to conduct a public hearing on the Draft MAG 208 Water Quality Management Plan Amendment for the Town of Buckeye Tartesso West Water Reclamation Facility. Chair Klingler introduced Steve Owen of PERC to provide an overview of the project.

Mr. Owen indicated that Andy Komor and Duong Do of Pacific Advanced Civil Engineering and Nathan Miller of Southwest Ground-water Consultants, Inc. were also present to assist with any questions on the project. Mr. Owen indicated that the proposed Tartesso West Water Reclamation Facility would be located west of the White Tank Mountains, north of Interstate 10 and west of the Sun Valley Parkway. He indicated that the plant would have an ultimate capacity of 18 million gallons per day and excess reclaimed water from the proposed facility would be disposed of through recharge, reuse and possibly through an Arizona Pollutant Discharge Elimination System Permit discharge.

Mr. Owen indicated that financing for the proposed plant would be provided by Stardust Development Corporation and the Town of Buckeye would receive the plant after construction. He indicated that the Town of Buckeye would contract with PERC for plant operation and maintenance similar to the existing agreement for the Buckeye Sundance Wastewater Treatment Plant. He indicated that the plant would be within three miles of the Maricopa County unincorporated area and that the County had indicated they do not object to the project.

Mr. Owen indicated that the plant would serve an approximate 13,500 acre master planned area which included developments such as Tartesso. He indicated that the treatment plant would be located on the southwest corner of the property and would rely on gravity flows to the plant site. He indicated the site selection included good setbacks, good use of land, and good proximity to the planned recharge basins.

Mr. Owen indicated that, by the year 2020, an estimated population of 139,000 is anticipated for the Tartesso Development. He indicated that, during the first phase, the plant would be built to 1.2 million gallons per day and subsequent expansions would occur to accommodate future growth. He indicated that the plant would be a Hybrid Sequencing Batch Reactor with biological oxidation of organic matter, biological nutrient removal, and tertiary treatment using disc filtration and Ultraviolet Disinfection. He indicated that the plant would meet ADEQ Title 18 Class A+ Effluent Standards and U.S. Environmental Protection Agency Class B Biosolids requirements. He indicated that sludge would be dried and hauled for reuse or landfilling.

Mr. Owen indicated that the plant would be the fourth PERC facility of its kind which has gone through the MAG 208 planning process, and that Litchfield Park Service Company had won a Valley Forward Technical Award for their 8.2 million gallon per day PERC facility. Mr. Owen indicated that required approvals and permits for the facility included MAG 208 conformance, Approval to Construct & Approval of Construction, Air Quality Permit, Flood Control, Aquifer Protection Permit, Reclaimed Water Reuse Permit, National Pollutant Discharge Elimination System (NPDES)

Permit, Sludge Disposal Agreement, Reclaimed Water Recharge Permit, Annual Operating Permit, and some permits from the Town of Buckeye.

Mr. Owen indicated that the anticipated schedule would include the design phase between March 2003 and October 2003, the construction phase between November 2003 and November 2004, and start up in December 2004. He indicated that effluent disposal would occur through discharge into adjacent recharge basins, indirect reuse from the underlying aquifer, NPDES discharge, and direct non-potable use such as potential golf course/park/landscape irrigation, onsite reuse for process water, and potential lake source water.

Mr. Hollander inquired whether the NPDES discharge to a surface water would be to the Hassayampa River and how often and how much the discharge may be.

Mr. Owen indicated that a NPDES discharge would be to the Hassayampa River.

Duong Do, Pacific Advanced Civil Engineering, indicated that one hundred percent recharge of the plant effluent was desired, and that reuse may be used when possible. He indicated that a hydrological study was underway.

Mr. Hollander inquired whether recharge and reuse would be used before a NPDES discharge to the Hassayampa River.

Mr. Do indicated that recharge and reuse would be used before a NPDES discharge.

Mr. Wade inquired whether the plant would use injection wells or ponds.

Mr. Do indicated that a hydrologic study was being conducted for recharge basins to see whether they could handle the full capacity of the plant.

Mr. Wade indicated that the City of Goodyear is greatly concerned about the location of the proposed Tartesso West Plant in relation to the planned Maricopa Combine Pipeline to the Future. He indicated that the pipeline for the Maricopa Combine Project was planned to be located near Sun Valley Parkway & McDowell Road. Mr. Wade indicated that the City of Goodyear would want any recharge from the proposed Tartesso West Plant to be correlated with respect to the Maricopa Combine recovery project.

Mr. Owen indicated that the proposed plant would produce Class A+ quality effluent to meet State requirements.

Mr. Wade indicated that the City of Goodyear would like to request that a study be done to see if there would be any impact between the proposed Tartesso West Plant and the Maricopa Combine Pipeline Project.

Chair Klingler indicated that the City of Goodyear may put that request in as part of the Committee's recommendation if the Committee so desired.

Mr. Wade indicated that the City of Goodyear objects to the proposed Tartesso project going forward without the study of the impact between the two projects.

Andrew Komor, Pacific Advanced Civil Engineering, inquired whether Mr. Wade could expand on the Maricopa Combine Pipeline Project with details such as the project location and who has rights to the groundwater.

Mr. Wade indicated that he is not well versed on the Maricopa Combine project at the present time, but he would attempt to expand. He indicated that the City of Goodyear is concerned about the possible contamination of water quality from the Tartesso project. Mr. Wade indicated that the Maricopa Combine is pursuing a pipeline that runs through Goodyear to Phoenix at some point, and that the City of Phoenix is interested in involvement for recovery of this water. He indicated that recharge would be part of the Agua Fria Recharge Project. He indicated that he believed that recovery wells may be planned somewhere along McDowell Road & Interstate 10.

Mr. Komor inquired whether the City of Phoenix 91st Avenue Wastewater Treatment Plant had a discharge that contributes one hundred times more water into the basin than the proposed Tartesso plant would.

Mr. Wade indicated that it is hard to know, but that the 91st Avenue discharge runs to the south and that the proposed Tartesso Plant discharge would run to the north. Mr. Wade indicated that the City would just like to make sure that there is no impact from the proposed Tartesso project.

David McNeil, City of Tempe, indicated that he believes that the Maricopa Combine Pipeline Project would be located in the Hassayampa. He indicated that the City of Goodyear may also want to voice their concern to the ADEQ since they are tasked with the responsibility to ensure that this area is protected to State Drinking Water Standards.

Mr. Owen indicated that the ADEQ is currently looking at that.

Mr. Hollander indicated that the 91st Avenue Wastewater Treatment Plant surface discharge goes to the Salt River at this time. He indicated that the reclaimed water may be optimized in the future with the possible Agua Fria Groundwater Recharge Project.

William Mattingly, City of Peoria, inquired whether the proposed Tartesso Plant would need a recharge and recovery permit from the Arizona Department of Water Resources (ADWR).

Nathan Miller, Southwest Ground-water Consultants, Inc., indicated that an Underground Storage Facility & Recharge Facility Permit from ADWR are being pursued.

Mr. McNeil inquired about the location where water would be recovered and what any recovered water may be used for.

Mr. Do indicated that drinking water wells would be installed northeast of the development and far enough from the wastewater treatment plant and upgradient in regard to groundwater flow. He indicated that details would be shown as part of a hydrological report which would be submitted with

the Aquifer Protection Permit and ADWR applications.

Mr. Wade inquired where recovery would occur.

Mr. Do indicated that recovery would occur to the east and west of the treatment plant.

Mr. Wade inquired what recovery method would be used.

Mr. Miller indicated that only recharge basins are planned at this time with the possibility of vadose zones in the bottom of each basin. He indicated that, as the plant would grow, the basins would move in the north direction.

Mr. Frost indicated that it sounded like recovery wells were being proposed to be located in the area of recharge.

Mr. Do indicated that, at this time, no recovery wells are being planned near the treatment plant.

Mr. Frost inquired whether reclaimed water used for golf course irrigation and lakes would be transported through a dedicated pipeline or through recovery wells.

Mr. Do indicated that a dedicated pipeline would be used for golf course uses.

Mr. Komor indicated that the design would be for temporary storage prior to irrigation, with storage in the lake or pond followed by pumping out of the lake or pond.

Chair Klingler indicated that it sounded like it was being proposed to have a number of ponds right by the treatment plant and a golf course miles away, which may cause difficulties in using reclaimed water for golf course irrigation.

Mr. Do indicated that any ponds would be near the golf course. He indicated that in Phase One, no reuse is planned. He indicated that ponds would be made to percolate, not to hold water, and they would not pump from the golf course pond to irrigate the golf course.

Mr. Frost indicated that the opportunity to put pipelines running out of the plant goes away over time. He indicated that, if Phases Three and Four already exist, it would not be feasible to squeeze a pipeline in between them during Phase Five.

Mr. Do indicated that, if a developer wants a golf course, plans would be made in advance for a golf course.

Mr. Owen indicated that, presently, the developer has indicated that recharge basins at the site are desired. He indicated that the ultimate plan at this time is to recharge all reclaimed water or as much as possible. He indicated that it is hard to plan at the present because the area would consist of 13,500 acres.

Mr. Komor indicated that half of the area to be served is not a part of the Tartesso Development and

it wouldn't be necessary to go over the Tartesso Development to get to the future development.

Mr. Frost inquired who gets the recharge credits and who pays for all future development.

Mr. Owen indicated that the Town of Buckeye would get the recharge credits and the developer would pay for future plant phases of construction.

Mr. Frost inquired about the design life of the proposed plant.

Mr. Owen indicated the plant has a design life of fifty plus years.

Mr. Bodiya inquired whether Mr. Owen could elaborate on the indirect reuse.

Mr. Owen indicated that it was referring to recharge and recovery.

Mr. Bodiya indicated that the draft 208 amendment for Tartesso indicated that plans for recharge and recovery were through indirect reuse, but now it sounds like something different is being proposed.

Mr. Komor indicated that all wells would be in an area of upstream gradient so indirect reuse would not be in Tartesso.

Mr. Bodiya indicated that the plant information should be in the development master plan.

Mr. Do indicated that Stardust Development Corporation has produced a master plan for the collection lines and other details through David Evans Associates.

Mr. Owen indicated that there are no intentions at this time to do anything other than recharge or discharge through a NPDES permit.

Mr. Komor indicated that one-third of the area to be served by the proposed Tartesso Plant has not yet been planned and is not part of the Tartesso Development.

Mr. Hollander inquired what the aerial extent of the groundwater mound would be and when recovery would be needed according to the draft hydrological study.

Mr. Miller indicated that they are currently conducting that analysis.

Mr. McNeil inquired what the depth to groundwater is.

Mr. Miller indicated that the depth to groundwater is 130 feet.

Mr. Hollander inquired how close to the surface the groundwater would come.

Mr. Miller indicated that the specifics were currently being hammered out.

Mr. Mattingly inquired what the purpose of vadose zone wells in the recharge basins would be.

Mr. Miller indicated that, if the recharge basins did not percolate as anticipated, the plan would be to use the vadose zones.

Chair Klingler indicated that it has been helpful that PERC has been able to hear some of the concerns from the Committee. He inquired whether MAG staff could confirm that the general Water Quality Advisory Committee steps in the MAG 208 plan amendment process include action items such as possible authorization to conduct a public hearing, reviewing public comments received after the hearing has been conducted, and possibly making a recommendation for approval of the draft 208 amendment to the MAG Management Committee.

Brenda Geisen, MAG staff, confirmed that these steps were correct.

Mr. Hollander indicated that the Water Quality Advisory Committee was requested to decide whether to authorize that a public hearing be conducted.

Rich Williams, City of Surprise, inquired whether the Town of Buckeye would own the proposed plant after Phase I construction was complete.

Mr. Owen indicated that the Town of Buckeye would own the plant at that time.

Mr. Williams inquired whose name would be on the plant permits.

Mr. Owen indicated that the Town of Buckeye would be the permit holder and would contract plant operation and maintenance to PERC.

Chair Klingler inquired whether Ms. Geisen could clarify whether the next step would be for the Committee to decide whether they want to authorize that a public hearing be conducted on the draft 208 plan amendment for Tartesso.

Ms. Geisen indicated that the action item on the agenda was for information, discussion, and possible authorization to conduct a public hearing on the proposed Tartesso amendment. She indicated that she had not experienced this exact situation before during a draft 208 amendment process, and requested that the Chair allow her to consult with her manager to ensure accuracy of the process.

Chair Klingler indicated that it would be fine for Ms. Geisen to consult with her manager.

Ms. Geisen consulted with her manager and then returned to the meeting. It is important to note that the proposed Tartesso Plant is important to the Town of Buckeye and the potential impact of the proposed plant on the Maricopa Combine Project is important to the City of Goodyear. Ms. Geisen indicated that one possible suggestion may be for the Chair to inquire with the Town of Buckeye whether pushing back the project by just a couple weeks to give Buckeye and Goodyear a chance to meet on the issue would be harmful to the Town of Buckeye.

Chair Klingler inquired whether Steve Owen could comment on whether pushing back the project a couple weeks for Buckeye and Goodyear to meet would be harmful since Town of Buckeye staff was not present.

Mr. Owen indicated that pushing back the project by a couple weeks would be harmful to the Town of Buckeye and to the developer. Mr. Owen indicated that it would be more desirable for the Committee to consider authorizing that a public hearing be conducted and allowing the two municipalities to address the issue during the weeks prior to the hearing.

Chair Klingler inquired when a public hearing would be held if it were authorized by the Committee that day.

Ms. Geisen indicated that a tentative July 28, 2003 public hearing date would meet the federal level requirement for a forty-five day advance public notice.

Chair Klingler indicated that a public notice period is required and that, following a public hearing, the Committee would be requested to consider comments received and make a recommendation to the MAG Management Committee on the draft 208 amendment. Chair Klingler inquired how the City of Goodyear would view the idea of authorizing that a hearing be conducted and allowing time for Buckeye and Goodyear to resolve the issue during the public notice period.

Mr. Wade indicated that the City of Goodyear is in favor of meeting with the Town of Buckeye to make sure that the concerns are addressed.

Mr. Frost moved with the provisos that PERC and the Town of Buckeye meet with the City of Goodyear to address their concerns and bring some resolution back to the Committee at the public hearing, with Mr. Hollander adding the proviso that the hydrologic study also be addressed, and Mr. McNeil seconded, and it was unanimously passed with the provisos that a public hearing be conducted on the Draft 208 Plan Amendment for the Town of Buckeye Tartesso West Water Reclamation Facility.

Chair Klingler indicated that a public hearing would be tentatively scheduled for July 28, 2003 and that this would allow time for meeting the provisos.

5. Call to the Public

An opportunity was provided to members of the public to address the Water Quality Advisory Committee. No comments were received and the meeting was adjourned.