

Melaney Seacat

From: Mark Marikos [marikosm@fm.arizona.edu]
Sent: Thursday, April 24, 2008 9:49 AM
To: Melaney Seacat
Subject: notes from April 23 meeting

Melaney,

Some thoughts that came to me during the meeting last night:

1. An expert on the aquifer system in the Tucson Basin is Dr. Chris Eastoe, from the Geosciences Department at the University. I think from his work of 20+ years, he knows as much as anyone about how the aquifer system (read: multiple aquifers) works in the Tucson Basin, including the interaction between surface water and aquifers. Here is his contact info:

name: **eastoe, christopher j**
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po box: 210077
department: geosciences
title: staff scientist, geosciences - geosciences

2. Another good place to deposit committee materials for the public may be the University Library and Pima Community College libraries.

3. Is there a list anywhere of the committee members, showing their affiliations / constituencies etc? And maybe a rationale of how the committee was selected?

4. The website would be a good place to build the glossary, that way it can be expanded as needed and give others a chance to refine the definitions. Also it would provide the opportunity to link to information on the web that can give more details for those wishing to delve deeper.

5. It would be good to put out something on the Public Meeting regulations showing the limitations imposed by the law and by the city's or county's interpretation of it concerning this committee. That might save a lot of explaining in meetings and de-fuse any criticism over procedures.

6. Another addition to the contact list from U of A is Grant McCormick, of the Campus Facilities and Planning (CFP). They are the group who do the long term planning for campus including growth, land use, etc. Grant has been very active with water harvesting initiatives on campus and in the community, and is an expert on desert landscaping.. Here is his contact

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info:

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 po box: 210300
 department: campus and facilities planning
 title: campus planner - cam/facil plan

7. We have used Clear Creek Associates as a hydrological consultant, and they are very interested in development in the Tucson basin.

Mike Alter would be the contact person: malter@clearcreekassociates.com

8. In exploratory drilling for a new well on campus we got to sample another potential "sub-potable" water source. It appears that the deeper part of the aquifer in the area is a very different quality of water. Higher arsenic would limit its potable uses, but its almost complete lack of calcium and magnesium (scale-forming minerals) makes it very attractive for cooling towers and other industrial uses. We are considering a deep well to tap this for our cooling towers.

It is possible to run cooling towers on water of this quality without any blow-down. That means the total water used to make-up in the towers can be decreased by about 16% and there is no sewerage generated except from the yearly draining of the towers for cleaning. Using this water would remove the burden from the potable supply and reduce the total water used for cooling, as well as reduce loading of the wastewater system.

9. We had tried for several years to use reclaimed water in the towers, but the high phosphate levels limited the number of cycles possible due to scale formation, so we have discontinued its use. Correction of the phosphate issue would not only resolve this problem, but would also ease some of the environmental concerns regarding release of effluent to the waterways.

10. Use of the term "sub-potable" may be a way to defuse some of the controversy concerning water-recycling. This could include not just reclaimed effluent, but other non-potable resources such as the deep groundwater, grey water and harvested rainwater.

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*Be very, very careful what you put into that head,
 because you will never, ever get it out.*

Thomas Cardinal Wolsey (1471-1530)

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