

October 18, 2007

Mr. Herb Guenther  
Director, Arizona Department  
of Water Resources  
3550 N. Central Avenue  
Phoenix, Arizona 85012



PO Box 13145 • Prescott, AZ 86304

Dear Mr. Guenther:

The Citizens Water Advocacy Group (CWAG) is writing to request information on a few issues concerning safe yield in the Prescott Active Management Area (PrAMA) and to request additional action on the part of your department.

By way of background, CWAG is a grass-roots organization located in Prescott. Our mission includes achievement of a sustainable water future. CWAG has been very active on the safe yield issue. In 2004 we conducted a detailed review of the PrAMA Third Management Plan. We presented those findings at a Groundwater Users Advisory Committee (GUAC) meeting and followed that presentation with a written report. CWAG also was represented on the recent GUAC Safe Yield Subcommittee and substantially contributed to its report on obstacles and opportunities to achieving safe yield.

The reports from these two activities and additional information about us are available on our web site, <http://www.cwagaz.org>.

The issues that we would like to discuss are described below.

### **1) Definition of Safe Yield**

Arizona defines safe yield, in part, as equality between withdrawals and the combined natural and artificial recharges. Most hydrologists understand the term “withdrawals” to refer to activity by humans and typically by pumping from wells. Likewise, they interpret artificial recharge as resulting from human activity and natural recharge as resulting from precipitation. The equality described above does not appear to include, in any way, the natural outflow of groundwater to surface waters or other aquifers. It should be apparent that if the safe yield equality described above were achieved, natural outflows would eventually cease.

At a recent CWAG meeting, Assistant Director for Water Management, Sandra Fabritz-Whitney, seemed to indicate that safe yield determinations for compliance with the goal would include natural outflow, contrary to the description we presented above. We would like you to clarify this issue. Will ADWR include natural outflow when determining compliance with safe yield? If so, what natural outflow will the Department require the PrAMA maintain? If safe yield were not being achieved solely because of natural outflows, would sanctions be imposed?

## 2) Quantification of Natural Recharge

If safe yield is to be achieved, the users in the PrAMA will need a best estimate of the amount of natural recharge that can be expected *on a long-term basis*. Likewise, if ADWR is to determine compliance, it will have to use an estimate of natural recharge *on a long-term basis*.

ADWR presents determinations of natural recharge when it calculates annual water budgets in its hydrologic reports. These determinations include two components, mountain front recharge based on the PrAMA groundwater model and an estimate of flooding in Granite Creek. The model output remains the same each year and could be considered a long-term average; however, the flooding component is determined annually based on flooding that actually occurred that year. These reports, therefore, do not provide an estimate of natural recharge on a long-term basis.

At times, public officials in the PrAMA have publicly stated that they can't proceed with plans for safe yield until ADWR provides a natural recharge number (also referred to as safe yield pumping). While there is much that these officials can do, but haven't done, the absence of a definitive natural recharge number from ADWR may delay development and implementation of safe yield solutions. We ask that ADWR make a determination of natural recharge using long-term estimates of Granite Creek flooding. This estimate should be provided to the public for review and acceptance.

We recognize that a determination of natural recharge for a long-term estimate can change as the PrAMA model can change or as better or updated estimates of flooding are made. Nevertheless, an estimate of long-term natural recharge is needed now.

We also recognize that the natural recharge estimate that you provide would be for the PrAMA as a whole and that the users would have the difficult task of deciding how to share that value.

## 3) Compliance with Safe Yield

CWAG understands that safe yield is in statute as a goal and not a regulatory requirement with direct enforcement provisions. We also appreciate that application of enforcement actions would be hampered by the difficulty of assigning responsibility for continued overdraft to any particular user entity. We have been led to believe, however, that ADWR can take action against water providers for failure to achieve safe yield. We request that you explain to the public and the users the options you have, if any, for failure to meet safe yield and how and to which user entities they can apply.

We also believe the public and the users should have an understanding of how you would make safe yield compliance determinations. A number of questions come to mind and include:

- a) How do you plan to reconcile the definition's reference to "a long-term average" with the practical need to make short-term judgments of compliance?
- b) Will you use water budgets to determine compliance, and will groundwater levels be used?
- c) ADWR's current water budgets include artificial recharge even though the recharged waters have not been dedicated to safe yield and can be withdrawn at any time. What will be the accounting procedure concerning artificial recharge in 2025 when safe yield is to be achieved?

- d) Will ADWR allow the use of alternative waters for new development after 2025 if safe yield is not being achieved?
- e) If safe yield is not being achieved in 2025, how will ADWR determine the responsibility of each user?

#### 4) Leadership

It is apparent that the law doesn't provide a strong regulatory program to require the achievement of safe yield. Notwithstanding the absence of a strong regulatory program, we believe your department could provide more leadership than it has to date. The public expects ADWR to protect the state's water resources, and we believe you can use your expertise and moral authority to encourage the major users in the PrAMA to take positive steps to achieve safe yield.

For example, at the conclusion of the Safe Yield Subcommittee program, CWAG urged certain elected officials to convene a workgroup of the water users in the PrAMA to develop plans to reach safe yield, including seeking state legislation that would overcome some of the obstacles the Subcommittee identified. We were unsuccessful. We believe ADWR should have been in the forefront of that effort. Had ADWR participated, the chance for success would have been greater.

Likewise, CWAG recently and successfully (pending approval of members' Councils) urged the Upper Verde River Watershed Protection Coalition to add the achievement of safe yield to its mission. We believe ADWR should have been in the forefront of that effort as well.

Now that the Upper Verde River Watershed Protection Coalition has added safe yield in the PrAMA to its mission, we hope ADWR will offer its assistance to the Coalition in its anticipated efforts to develop a plan to reach safe yield. As discussed above, a difficult task for the users will be to decide how to share the natural recharge. This task is necessary if each user is to know how much groundwater they can withdraw and still achieve safe yield. We believe ADWR should offer to facilitate those discussions.

We are aware that ADWR is working on the Fourth Management Plan for the PrAMA and that it is behind schedule. We hope that the Plan will provide realistic estimates of the status and likelihood of achieving safe yield.

We look forward to your response to these important issues. If you have any questions concerning this letter, I can be reached at 928-708-1660.

Sincerely,

John Zambrano  
Vice President