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ARIZONA DEPARTMENT OF WATER RESOURCES

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Janet Napolitano Governor

Herbert R. Guenther Director

December 10, 2007

Mr. John Zambrano Vice President Citizens Water Advocacy Group P.O. Box 13145 Prescott, Arizona 86304

Re: Your letter dated October 18, 2007

Dear Mr. Zambrano,

I am responding to your letter to me dated October 18, 2007, in which you requested information on several issues regarding safe-yield in the Prescott Active Management Area (AMA), as well as additional action on the part of the Department of Water Resources (Department). Before addressing the issues raised in your letter, I would like to first commend you and the other members of the Citizens Water Advisory Group for your commitment to the achievement of a sustainable water future for the Prescott AMA. The Department shares in that commitment and I believe that the actions taken by the Department to date and the work the Department is currently doing demonstrate that commitment.

Next, I would like to point out some of the major reasons why the Prescott AMA is not currently at safeyield. Those reasons are as follows:

- There are a large number of exempt wells in the AMA. The Legislature has not given authority to the Department to regulate exempt wells through the Department's conservation requirements, nor has the Legislature given authority to the Department to regulate lot splits served by exempt wells through the Department's Assured Water Supply (AWS) Rules.
- Although more stringent A WS requirements for the AMA became effective when the Department declared the AMA to be out of safe-yield in 1999, legislation enacted in 1998 exempted from those requirements subdivisions built pursuant to preliminary plats recorded with the City of Prescott before the legislation became effective. As you may know, many entities recorded preliminary plats with the City just prior to the effective date of the legislation, resulting in the development of a number of subdivisions in the AMA since 1999 without the need to comply with the consistency with management goal requirements in the AWS Rules.
- The drafters of the Groundwater Code recognized that achievement of safe-yield in an AMA may not be possible through the Code's regulatory programs alone. For that reason, the drafters included in the Code authority for the Department to levy and collect an additional groundwater withdrawal fee beginning in 2006 for purchasing and retiring grandfathered groundwater rights in the AMA. However, as explained in the Third Management Plan for the Prescott AMA (pages 8-26 and 8-27), because of the limited amount of fees that could be collected for that purpose and the high cost of purchasing grandfathered rights, it would not be cost-effective to pursue this option without an additional appropriation of monies from the Legislature. To date, the Legislature has not appropriated any monies for purchasing and retiring grandfathered rights.

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 Unlike the Phoenix, Pinal and Tucson AMAs, where Colorado River water is available through the CAP canal, the Prescott AMA currently does not have a delivery system in place that can bring water into the AMA for use in replacing groundwater pumping.

Because of the many factors that have led to the AMA being out of safe-yield, achievement of safe-yield in the AMA will not be an easy task. Although I have named a few of the reasons above, everyone in the Prescott AMA has a role in moving the AMA closer to the goal. In addition to the efforts by the Department, efforts by the local communities are critical to achieving safe-yield. The Department intends to work with the local communities to assist them in their efforts. While achieving safe-yield in the Prescott AMA will certainly be a challenge, I believe that a cooperative effort by both the Department and the local communities will take us a long way toward the goal.

The following are the Department's responses to the specific issues raised in your letter:

1. <u>Definition of Safe-Yield</u>

You ask whether the Department will include natural outflow when determining compliance with safe-yield in the Prescott AMA. Before addressing this question, I would like to first address an issue raised by your use of the term "compliance." In several places in your letter, you seem to imply that there is a requirement that water users in the AMA *comply* with safe-yield by 2025. Safe-yield is defined in the Groundwater Code as "a *groundwater management goal* which attempts to achieve and thereafter maintain a long-term balance between the annual amount of groundwater withdrawn in an active management area and the annual amount of natural and artificial recharge in the active management area." A.R.S. § 45-561(12) (emphasis added). The management goal of the Prescott AMA is to achieve safe-yield by January 1, 2025. By using the term "goal" in the definition of safe-yield, the Legislature clearly did not intend to require *compliance* with safe-yield in a regulatory sense, with sanctions imposed on persons if safe-yield is not achieved. This is supported by the fact that there is no language in the Code that requires any person to comply with safe-yield.

Instead of requiring compliance with safe-yield, the Legislature established safe-yield as a goal and directed the Department to develop conservation requirements and assured water supply requirements to assist the AMA in achieving the goal. While compliance with those requirements is mandatory for the persons subject to the requirements, there is no requirement for any person to comply with safe-yield.

To directly answer your question, the Department has historically included the quantity of groundwater withdrawn from the aquifer by natural factors such as outflow to another groundwater basin or to springs and streams in the calculation of safe-yield. The water budgets in the First, Second and Third Management Plans for the Prescott AMA all included natural outflow as a component, either as a separate water demand or as a reduction in natural recharge. The Department's position on this issue was made very clear in its Report on the Final Decision and Order That the Prescott Active Management Area is No Longer at Safe-Yield, dated January 12, 1999 ("Report"). In the Report, the Department rejected the argument presented by an interested person that natural outflows from the AMA are not to be considered in the safe-yield definition. The Department stated that excluding natural outflows from the definition would allow the AMA's aquifer to be overdrafted and depleted, contrary to the obvious intent

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of the Legislature in enacting a comprehensive Groundwater Management Act. (Report, at 28-29). As noted in your letter, Sandy Fabritz-Whitney, the Department's Assistant Director for Water Management, recently stated at a CWAG meeting that safe-yield determinations would include natural outflow. With this letter, the Department reaffirms that position.

The natural outflows from the Prescott AMA that the Department will include in the safe-yield calculation are: (1) groundwater discharge at Del Rio Springs and evapotranspiration at that location; (2) groundwater discharge to the Agua Fria River at Humboldt and evapotranspiration at that location: and (3) underflow to the Big Chino sub-basin north of Chino Valley.

2. Quantification of Natural Recharge

You point out in your letter that in calculating the estimated natural recharge to be included in the Department's annual water budget for the AMA, the Department includes an estimate of flooding in Granite Creek based on the flooding that occurred in that year and not on a long-term estimate. You request the Department to provide an estimate of natural recharge in the Prescott AMA on a long-term basis, using long-term estimates of Granite Creek flooding. You also request that the Department make the estimate available to the public for review and acceptance.

Flood recharge estimates for the Prescott AMA during the period 1940-2004 are found in the following Department reports: Corkhill and Mason, 1995; Nelson, 2002 (first update of the Corkhill and Mason Report); and Timmons, 2006 (second update of the Corkhill and Mason Report). It is possible to calculate the estimated average annual flood recharge in the AMA using the flood recharge estimates from these reports. The Department recently began work on an assessment of each AMA's progress toward meeting its management goal. As part of the assessment for the Prescott AMA, the Department will calculate the estimated average annual flood recharge for the AMA based on the 1940-2004 flood recharge estimates. The Department will make that estimate available to the public, along with an estimate of the total average annual natural recharge for the AMA.

It should be noted that a considerable number of assumptions and estimates went into the development of the flood recharge estimates for the period 1940-2004. Therefore, although the flood recharge estimates are the Department's best estimates, it is important to recognize that they are only estimates. Additionally, as the Department updates the flood recharge estimates by including years after 2004, the average annual flood recharge for the AMA will change. Finally, it is very important to understand that regardless of the accuracy of the historic flood recharge estimates, it is not at all certain that the estimated historic average will be representative of future conditions, particularly if long-term climatic changes occur.

You correctly state in your letter that the natural recharge estimate that the Department will calculate will be for the Prescott AMA as a whole. However, you go on to state that water users in the AMA will have the difficult task of deciding how to share that value. Although the efforts of individual water users are critical to meeting the safe-yield goal, the Department does not believe it is appropriate to divide the natural recharge among individual water users in the AMA. Safe-yield is the goal for the AMA as a

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whole, and achievement of the goal will be determined on the basis of whether the AMA as a whole is at safe-yield by 2025. For that reason, the components of the safe-yield equation, including natural recharge, should be considered on an AMA-wide basis, and not on an individual water user basis.

3. Compliance with Safe-Yield

You ask a number of questions regarding how the Department will make safe-yield compliance determinations, including what actions the Department may take against water providers if they fail to achieve safe-yield. As stated previously, the Department has no authority to take compliance action if safe-yield is not achieved. Additionally, safe-yield is an AMA-wide goal, and is not considered to be a goal or requirement that an individual water user or water provider can achieve solely by its own actions. Therefore, while the Department can take action against a water provider if it fails to comply with its management plan conservation requirements, the Department cannot take action against a water provider if safe-yield is not achieved.

The Department provides the following answers to your individual questions:

- a) <u>Question</u>: 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?
 - Answer: Because the Department has no authority to take compliance action for failure to achieve safe-yield, it will make no "judgments of compliance." With respect to how the Department will determine whether safe-yield is being achieved, the statutory definition of safe-yield requires the Department to look at whether there is a "long-term" balance between annual withdrawals and annual recharge. The Department intends to address this issue in its assessment of the AMA's progress toward achieving its goal.
- b) Question: Will you use water budgets to determine compliance, and will groundwater levels be used?
 - Answer: The Department will use water budgets and groundwater level monitoring to determine achievement of safe-yield. Additionally, stream flow monitoring and other types of data collection and analysis, including groundwater modeling, will be used. The technical analysis plan for determining safe-yield is laid out in the Department's report entitled "Preliminary Determination Report on the Safe-yield Status of the Prescott Active Management Area," dated August 21, 1998. That report was incorporated by reference into the "Report on the Final Decision and Order that the Prescott Active Management Area is No Longer at Safe-Yield," dated January 12, 1999.
- c) <u>Question</u>: 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?

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Answer: The statutory definition of safe-yield requires the Department to include artificial recharge as a component. However, the Department has consistently interpreted this to mean artificially recharged water that will not be recovered at a later date. In other words, water stored underground and designated as nonrecoverable water pursuant to A.R.S. § 45-833.01 and the percentage of water stored on a long-term basis that cannot be recovered pursuant to A.R.S. § 45852.01 (B) (e.g., the 5 percent "cut to the aquifer" for surface water). Water stored underground that can be recovered on an annual basis or as long-term storage credits will not be included in the Department's water budgets and will not be considered when determining achievement of safe-yield.

d) <u>Question</u>: Will ADWR allow the use of alternative waters for new development after 2025 if safe yield is not being achieved?

<u>Answer</u>: Yes. Under current statutory law, alternative water supplies may be used for new development after 2025 if safe-yield is not being achieved. This includes effluent, surface water and groundwater imported from outside the AMA.

e) <u>Question</u>: If safe yield is not being achieved in 2025, how will ADWR determine the responsibility of each user?

<u>Answer</u>: The Department has no authority to assess responsibility against individual water users if the safe-yield goal is not achieved by 2025. As explained previously, the safe-yield goal is a statutory goal for the AMA as a whole. However, individual water users are required to comply with management plan conservation requirements designed to assist the AMA in achieving its safe-yield goal. The Department will take action to enforce the conservation requirements regardless of whether the AMA is achieving safe-yield.

4. Leadership

You request the Department to provide more leadership regarding the achievement of safe-yield in the Prescott AMA than it has in the past. While I certainly agree that it is important for the Department to take a strong leadership role in the effort to achieve safe-yield, I do not agree that the Department has failed to provide such leadership in the past or that it is not currently providing such leadership.

In the past, the Department has provided leadership in a number of areas critical to the achievement of safe-yield in the Prescott AMA. The following are some of examples of the things the Department has done:

- Collected and analyzed basic hydrologic data and shared that data with local communities and water user groups, including the Safe Yield Subcommittee of the Prescott AMA Groundwater Users Advisory Council.
- Provided funding for regional and sub-regional hydrologic studies.

- Developed AMA water management plans, water management programs and water conservation strategies.
- Declared that the AMA is no longer at safe-yield, which resulted in the imposition of more stringent assured water supply criteria requiring new developments to rely primarily on non-groundwater sources.

The Department continues to perform work critical to the achievement of safe-yield in the AMA. The following are examples of work that is currently underway or that is planned for the near future:

- The Department is continuing to collect and analyze hydrologic data in the AMA. This data will be used by the Department in developing its water management programs and also will be made available to local communities and water user groups.
- As previously stated, the Department has begun work on an assessment of each AMA's progress toward achieving its management goal. For the Prescott AMA, this goal assessment will provide valuable information on where the AMA stands today with respect to safe-yield and how much needs to be done to achieve safe-yield by 2025. This information is critical for the development of the Fourth Management Plan.
- The Department will soon begin developing the Fourth Management Plan. With the information obtained from the AMA goal assessment described above, the Department will have information necessary to develop appropriate conservation programs and augmentation programs for the AMA.

In your letter, you ask the Department to provide assistance to the Upper Verde River Watershed Protection Coalition ("Coalition") in its work to achieve safe-yield. The Department is supportive of the Coalition's efforts to achieve safe-yield, and if requested by the Coalition, the Department will provide the Coalition with available technical data to assist it in its work.

I hope this letter adequately addresses the questions raised in your letter. I would like to again commend the members of the Citizens Water Advocacy Group for their work in pursuing a sustainable water future for the Prescott AMA. The Department looks forward to working with you and all other stakeholders in the area who are concerned about the stewardship and management of water resources in the AMA.

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Sincerely,

Herbert R. Guenther

Director

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