



City of Flagstaff

May 6, 2010

Douglas W. Dunham
Deputy Assistant Director
Arizona Department of Water Resources
3550 N. Central Avenue
Phoenix, Arizona 85012

via email

RE: Substantive Policy Statement – Hydrologic Guidelines Demonstrating Physical Availability of Groundwater for Assured and Adequate Water Supply (AAWS) Applications, May 24, 2010

Dear Mr. Dunham, ^{Doug}

City of Flagstaff is interested in any proposed changes to the AAWS Physical Availability Rules and Substantive Policy Statement pertaining to the "C" and "R" aquifers of northern Arizona. As you are aware, the Coconino County Board of Supervisors in the past has contemplated adopting the mandatory Water Adequacy provisions provided in SB 1575. In consideration of that possibility and to better manage our water supplies, the City would like to provide comment on any proposed changes that may impact our ability to eventually become Designated as having an Adequate Water Supply as determined by the Department of Water Resources (Department).

According to the Summary of Draft Proposed Changes, the new policy statement will provide for an exception to the 100-year depth-to-water 1,200 foot below land surface limitation for adequate water supply determinations located outside of AMAs within the C and R aquifers provided the applicant can prove financial capability. Of course, the City supports this type of exemption since the majority of groundwater levels in our wells already exist greater than 1,200 feet below land surface today.

I would like to express my appreciation to the Department for the opportunity to provide comments. My specific comments are provided on the following pages for your review and consideration.

Page 5: II B – Depth to Static Water Level Outside AMAs:

The paper states *“For projects outside AMAs, the maximum 100-year depth-to-static water level is 1,200 feet below land surface, except in locations where a sufficient 100-year supply of groundwater is demonstrated to be available in a consolidated sedimentary rock aquifer such as, productive zones of the “R” and “C” regional aquifer systems of northern Arizona)...”*

As previously mentioned while we support an exemption, it is unclear what criteria will be used by the Department to determine if a *sufficient 100-year supply of groundwater is available within the C or R aquifers?* When the Department engaged northern Arizona technical water experts including the City, during its proposed Rule making process in 2008/09, the criteria was proposed to change from the existing 1,200 foot limitation to a new criteria of 50% saturated thickness remaining. However, since that Rule making was put on hold, what criteria will the Department use to make its evaluation relative to this updated Substantive Policy Statement?

Without a set of pre-determined hydrologic criteria in-place, an evaluation by the Department of whether a *“sufficient 100-year supply of groundwater is demonstrated”* seems like it would be very subjective. The uncertainty on how a proposed applicant’s water supply would be evaluated would at best be problematic and at worst lead to potential conflict between the technical experts of the applicant and Department. I suggest the Department work collaboratively with the affected stakeholders in northern Arizona to derive a set of guidelines and evaluation criteria unique to the “C” and “R” aquifers.

As an example, prior discussions with the Department during the 2008/09 Rule making process to modify the criteria included attempts to define the what is the thickness of a confined aquifer. The Department proposed in their draft Rule (January 9, 2009) to define it as only that portion of the saturated confined geologic unit. However, others suggested that the definition should to take into account the piezometric pressure head within the aquifer when calculating the total confined aquifer thickness. Hopefully, this example helps to illustrate why it is important for the Department and stakeholders to work collaboratively to develop a set of guidelines on how an applicant’s 100-year water supply will be evaluated in the unique hydrogeologic conditions of northern Arizona.

Page 6, paragraph 2 – 1. Availability of Groundwater at a Lower Depth:

The paper states *“In some cases, demonstrating that groundwater is available at the lower depth requires long-term investigations....The Department will not issue a variance until the required information is submitted and approved, but will work with the applicant to develop a plan for monitoring and testing...”*

Since the City has been collecting hydrologic data for over 60-years related to its groundwater supplies, we support the need to collect long-term information. However, It is unclear if the long-term monitoring mentioned must be completed prior to the Department approving an application for Water Adequacy or only that the plan to collect long-term information is submitted?

Page 9, paragraph 1 – 2. Issued AAWS Demands:

The paper states *“Issued Demands include the estimated water demands of issued certificates, water reports, including inadequate water reports, designations and analyses that are not yet served water....”*

Does this mean that an applicant seeking a Designation of Water Adequacy must consider the water demands of a development that the Department has previously determined as “inadequate” whether it is a designation, water report or analysis? If this is the case, why does an applicant have to be burdened with considering those water demands where the Department has already determined it's water supply to be inadequate? Could the Department provide some clarification or explanation?

Additionally, this section of the Policy Statement provides no guidance on the distance the Issued Demands must be considered away from the applicant's proposed Water Adequacy Application. For example, the City of Flagstaff resides in a groundwater basin that is approximately 27,000 mi² in size which would seem an inappropriate scale.

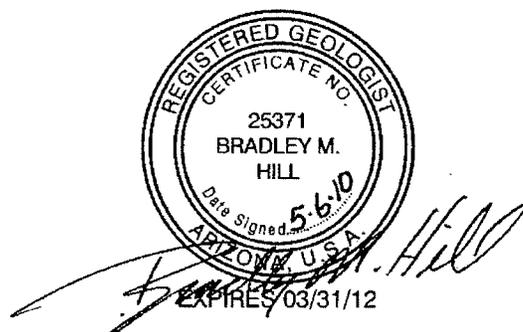
Once again, I would like to thank the Department for the opportunity to review and provide comments to this proposed changes to the AAWS Physical Availability Rules and Substantive Policy Statement for Hydrologic Studies Demonstrating Physical Availability of Groundwater for Assured and Adequate Water Supply Applications, dated March 24, 2010.

If you have any questions regarding these comments, please feel free to contact me. Otherwise I look forward to hearing from the Department and ultimately working collaboratively on the development of appropriate hydrologic criteria for the C and R aquifers of northern Arizona.

Sincerely,



Bradley M. Hill, R.G.
Water Resources Manager
Hydrologist



- c: Randy Pellatz, P.E., City of Flagstaff Utilities Director
Sandy Fabritz-Whitney, Deputy Director-Water Management, ADWR
E. Frank Corkhill, R.G., Deputy Director – Hydrology, ADWR